

# CALIFORNIA HIGH-SPEED TRAIN

Project Environmental Impact Report/Environmental Impact Statement

FINAL

## Merced to Fresno Section Project EIR/EIS **Volume III:** **Section F2 – Alignment Plans** Hybrid Alternative with Ave 21 Wye

April 2012



**CALIFORNIA**  
High-Speed Rail Authority



**U.S. Department of Transportation**  
Federal Railroad Administration



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VOLUME 1 - GENERAL & TRACK ALIGNMENT

DRAWING No.	REV No.	DRAWING DESCRIPTION
		VOLUME 1A - GENERAL
GE-D0001		PACKAGE 1A - TITLE SHEET
GE-A0001		PACKAGE 1A - GENERAL - INDEX OF DRAWINGS
TT-B0001		PACKAGE 1A - GENERAL - NOTES
VS-C0001		PACKAGE 1A - GENERAL - SURVEY CONTROL DATA - SHEET 1 OF 4
VS-C0002		PACKAGE 1A - GENERAL - SURVEY CONTROL DATA - SHEET 2 OF 4
VS-C0003		PACKAGE 1A - GENERAL - SURVEY CONTROL DATA - SHEET 3 OF 4
VS-C0004		PACKAGE 1A - GENERAL - SURVEY CONTROL DATA - SHEET 4 OF 4
		VOLUME 1B - TRACK ALIGNMENT
TT-B0001		PACKAGE 1A - TRACK GUIDEWAY - KEY MAP
TT-D3001		PACKAGE 1A - TRACK GUIDEWAY - TYPICAL SECTIONS
TT-D3002		PACKAGE 1A - TRACK GUIDEWAY - TYPICAL SECTIONS
TT-D3003		PACKAGE 1A - TRACK GUIDEWAY - TYPICAL SECTIONS
TT-D3004		PACKAGE 1A - TRACK GUIDEWAY - TYPICAL SECTIONS
TT-D3005		PACKAGE 1A - TRACK GUIDEWAY - TYPICAL SECTIONS
TT-D3006		PACKAGE 1A - TRACK GUIDEWAY - TYPICAL SECTIONS
TT-D3007		PACKAGE 1A - TRACK GUIDEWAY - TYPICAL SECTIONS
TT-D3008		PACKAGE 1A - TRACK GUIDEWAY - TYPICAL SECTIONS
TT-D3009		PACKAGE 1A - TRACK GUIDEWAY - TYPICAL SECTIONS
CB3010		FRESNO SUBSECTION - ALIGNMET F1 - CROSS SECTIONS
CB3011		FRESNO SUBSECTION - ALIGNMET F1 - CROSS SECTIONS
TT-D0001		PACKAGE 1A - TRACK GUIDEWAY - HORIZONTAL ALIGNMENT DATA
TT-D1000		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10535+00 TO 10554+00
TT-D1001		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10554+00 TO 10582+00
TT-D1002		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10582+00 TO 10610+00
TT-D1003		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10610+00 TO 10638+00
TT-D1004		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10638+00 TO 10666+00
TT-D1005		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10666+00 TO 10694+00
TT-D1006		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10694+00 TO 10722+00
TT-D1007		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10722+00 TO 10750+00
TT-D1008		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10750+00 TO 10778+00
TT-D1009		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10778+00 TO 10806+00
TT-D1010		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10806+00 TO 10834+00
TT-D1011		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10834+00 TO 10862+00
TT-D1012		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10862+00 TO 10890+00
TT-D1013		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10890+00 TO 10918+00
TT-D1014		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10918+00 TO 10946+00
TT-D1015		PACKAGE 1A - TRACK GUIDEWAY - PLAN AND PROFILE - STA. 10946+00 TO 10974+00
CB1657		FRESNO SUBSECTION - ALIGNMET F1 - STA. 257+24.56 TO 261+00
CB1658		FRESNO SUBSECTION - ALIGNMET F1 - STA. 261+00 TO 275+00

CB1659		FRESNO SUBSECTION - ALIGNMET F1 - STA. 275+00 TO 289+00
CB1160		FRESNO SUBSECTION - ALIGNMET F1 - STA. 289+00 TO 303+00
CB1161		FRESNO SUBSECTION - ALIGNMET F1 - STA. 303+00 TO 317+25
		TT-D0016 TO TT-D1029 NOT USED
TT-D1030		PACKAGE 1A - SJVRR SOUTH SPUR - PLAN AND PROFILE - STA. 0+00 TO STA. 8+68.74

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
DRAWN BY A. SHIELDS
CHECKED BY A. BOONE
IN CHARGE A. BOONE
DATE 02/01/2012

PROPOSED  
PRELIMINARY  
DESIGN

NOT FOR  
CONSTRUCTION

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

**CH2MHILL**



CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION  
PACKAGE 1A  
GENERAL  
INDEX OF DRAWINGS

CONTRACT NO.
DRAWING NO. GE-A0001
SCALE NONE
SHEET NO.

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GENERAL NOTES

A. GENERAL

- 1. IN-SCOPE AND AND NOT IN-SCOPE ITEMS ARE INDENTIFIED IN THE SCOPE OF WORK ATTACHMENT (ELEMENTS MATRIX + SCOPING TYPICAL SECTIONS)
- 2. REFER TO SCOPE OF WORK DOCUMENTATION IN THE PROCUREMENT PACKAGE FOR SCOPE REQUIREMENTS. FINAL DESIGN AND DIMENSIONS SHALL BE BASED ON DESIGN CRITERIA, DIRECTIVE DRAWINGS AND STANDARD DRAWING REQUIREMENTS.

B. CONTROL SURVEY AND MAPPING:

- 1. NAD 83 (NSRS2007), (1991.35)CALIFORNIA COORDINATE SYSTEM DATUM SHALL BE USED AS HORIZONTAL COORDINATE VALUES.
- 2. NAVD 88 VERTICAL DATUM SHALL TO BE USED AS VERTICAL DATUM.
- 3. MAPPING SHALL BE BASED ON CALIFORNIA COORDINATE SYSTEM (CCS 83) IN US CUSTOMARY UNITS.
- 4. NETWORK OF CONTROL SURVEY MONUMENTS WAS ESTABLISHED AT TWO MILE INTERVALS ALONG THE CHSTP ALIGNMENT. THESE CONTROL MONUMENTS SHALL BE USED IN FUTURE SURVEYS TO ENSURE THAT SURVEY ACTIVITIES ARE BASED ON THE SAME ADJUSTMENT POSITIONS AND EPOCH THAT TRANSITIONS BETWEEN ZONES OF THE CALIFORNIA COORDINATE SYSTEM ARE UNIFORM AND CORRECT.

TRACK GENERAL NOTES:

A. GENERAL TRACK NOTES:

- 1. THE GENERAL BASIS FOR TRACK STANDARDS AND MATERIALS SHALL BE THE AREMA MANUAL.
- 2. TRACK AND TRACK COMPONENTS SHALL BE DESIGNED AND FABIRICATED TO PERFORM UNDER THE PREVAILING AND EXTREME CLIMATIC AND ENVIRONMENTAL CONDITIONS OCCURING WITHIN THE GEOGRAPHIC EXTENT OF THE SYSTEM.
- 3. THE PROFILE IS CARRIED ON THE TOP OF LOWER RAIL THROUGH HORIZONTAL CURVES AND SPIRALS FOR THE DESIGNATED TRACK.
- 4. THE LENGTHS OF LINES ARE BASED ON CENTER OF TRACK ALIGNMENT.
- 5. UNLESS SEPARATE TRACK PROFILES ARE GIVEN, TRACK PARALLEL TO THE DESIGNATED TRACK ARE AT THE SAME TOP OF RAIL ELEVATIONS PROJECTED ON EITHER PERPENDICULAR OR RADIAL LINES FROM THE DESIGNATED TRACK CENTERLINES.
- 6. BALLASTED TRACKS ARE GENERALLY PREFERRED FOR YARD TRACKS. DESIGNERS SHALL FOLLOW THE REQUIREMENTS ASSOCIATED WITH CONSTRUCTION OF BALLASTED TRACK IN THE CALIFORNIA HIGH SPEED TRAIN DESIGN MANUAL.
- 7. DIMENSIONS SHOWN ON THE DESIGN DRAWINGS WERE DEVELOPED BY PRELIMINARY ENGINEERING AND FINAL DIMINSIONS WILL BE DETERMINED ON THE FINAL TRACK PLANS BY THE DESIGN BUILDER.
- 8. "ORIGINAL GROUND" SHOWN ON CROSS SECTIONS REFERS TO THE APPROXIMATE EXISTING GROUND LINE AT THE DESIGNATED CENTERLINE, BASELINE, LAYOUT LINE OR SECTION LINE.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY A. SHIELDS
CHECKED BY A. BOONE
IN CHARGE A. BOONE
DATE 02/01/2012

PROPOSED  
PRELIMINARY  
DESIGN  
  
NOT FOR  
CONSTRUCTION



CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

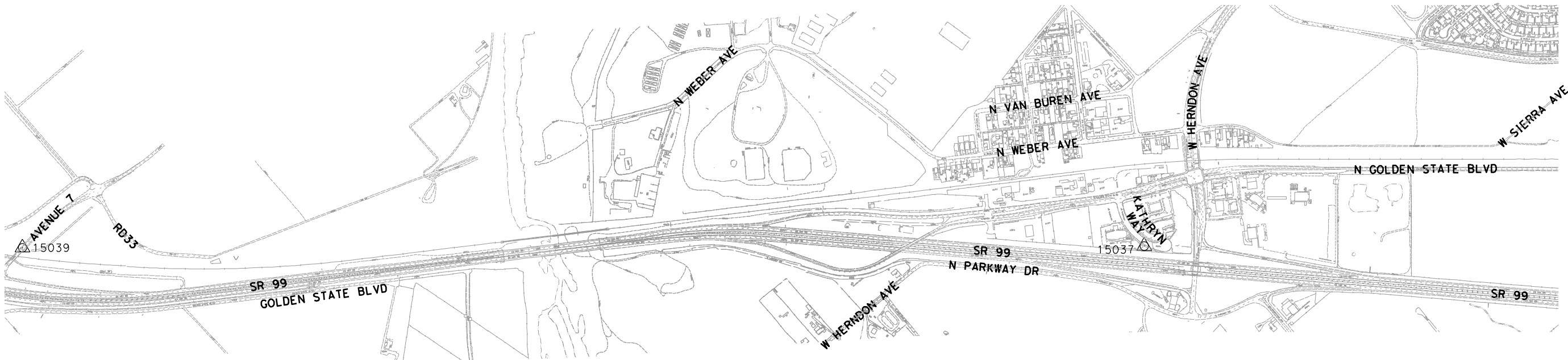
CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION  
PACKAGE 1A  
TRACK GUIDEWAY  
GENERAL NOTES

CONTRACT NO.
DRAWING NO. TT-B0001
SCALE NONE
SHEET NO.

\\usscr1fp001\Cadd\CHSR\60022962\Task-03\_Merced-Fresno\Cadd\Gen\SHEET\15-VS-C0001.dgn 1/20/2012 11:20:49 AM CAHSR-r1.tbl CHSR\_half\_black3.plt sul11\vanh

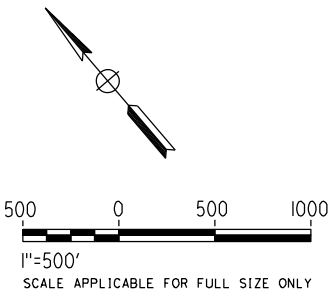
NOTES:

1. HORIZONTAL CONTROL DATUM:  
  
THE HORIZONTAL GRID COORDINATES SHOWN HEREIN ARE BASED UPON THE NORTH AMERICAN DATUM OF 1983 (NAD 83), CALIFORNIA STATE PLANE COORDINATE SYSTEM, ZONE IV.
2. VERTICAL CONTROL DATUM:  
  
THE VERTICAL DATUM FOR THE EVEVATIONS SHOWN HEREIN ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
3. PROJECTION:  
  
LAMBERT CONIC PROJECTION



HORIZONTAL AND VERTICAL CONTROL INFORMATION

POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
15037	PB CONTROL: S182-P 2 1/2" BRONZE DISK IN 1" IRON PIPE IN 8" CONCRETE PIER, STAMPED "CHSRA S182P LS 4430 2010"	2187855.88	6292923.69	300.64
15039	NGS CONTROL: DG9697	2194533.009	6285098.921	318.89



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY F. DeMARCO
CHECKED BY S. WONG
IN CHARGE A. BOONE
DATE 01/09/2012

PROPOSED  
PRELIMINARY  
DESIGN  
  
NOT FOR  
CONSTRUCTION

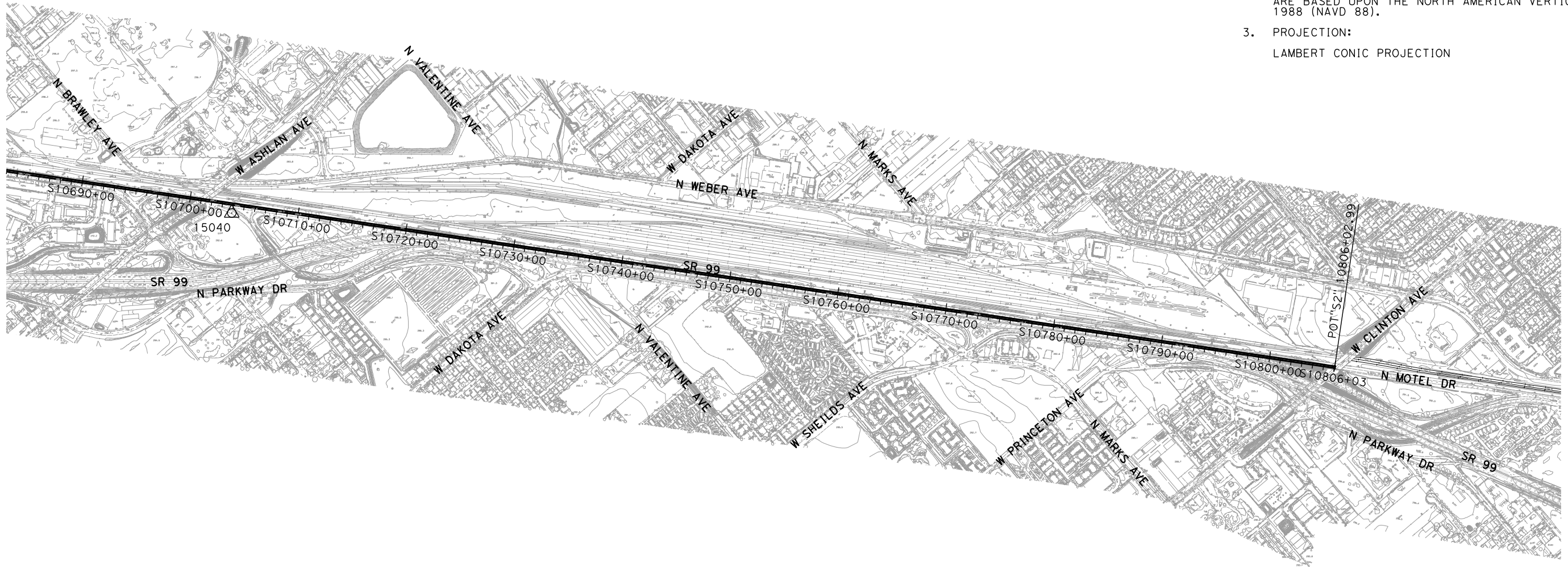


CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION  
PACKAGE 1A  
GENERAL  
SURVEY CONTROL DATA  
SHEET 1 OF 4

CONTRACT NO.
DRAWING NO. VS-C0001
SCALE AS SHOWN
SHEET NO.



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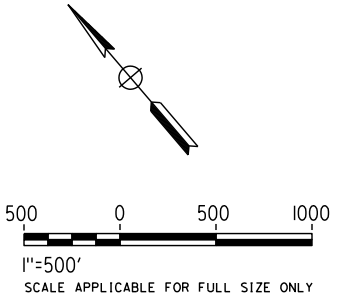


NOTES:

- HORIZONTAL CONTROL DATUM:  
THE HORIZONTAL GRID COORDINATES SHOWN HEREIN ARE BASED UPON THE NORTH AMERICAN DATUM OF 1983 (NAD 83), CALIFORNIA STATE PLANE COORDINATE SYSTEM, ZONE IV.
- VERTICAL CONTROL DATUM:  
THE VERTICAL DATUM FOR THE ELEVATIONS SHOWN HEREIN ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PROJECTION:  
LAMBERT CONIC PROJECTION

HORIZONTAL AND VERTICAL CONTROL INFORMATION

POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
15040	NGS CONTROL: AC6102	2172846.932	6309610.265	292.45



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY F. DeMARCO
CHECKED BY S. WONG
IN CHARGE A. BOONE
DATE 02/01/2012

**PROPOSED  
PRELIMINARY  
DESIGN**

**NOT FOR  
CONSTRUCTION**

**AECOM**  
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Sacramento, CA 95811

**CH2MHILL**



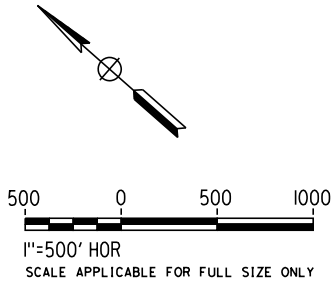
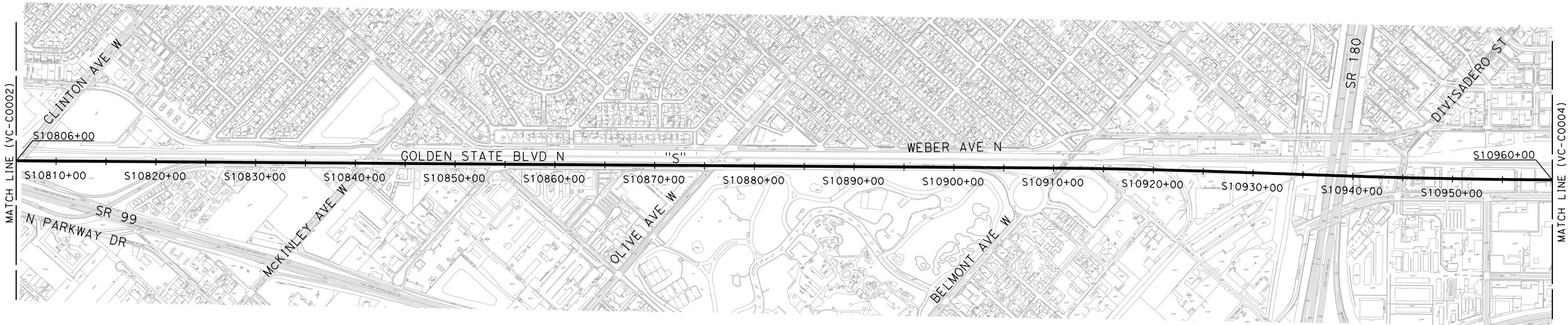
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION**

PACKAGE 1A  
GENERAL  
SURVEY CONTROL DATA  
SHEET 2 OF 4

CONTRACT NO.
DRAWING NO. VS-C0002
SCALE AS SHOWN
SHEET NO.

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- NOTES:**
- 1. FOR LOCATION OF CONTROL POINT # 15037 (S182P)  
SEE SHEET VS-C001
  - FOR LOCATION OF CONTROL POINT # S193P  
SEE SHEET VS-C0004



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY S. CHRISTENSEN
DRAWN BY S. AVILES
CHECKED BY J. LABANOWSKI
IN CHARGE G. HORTON
DATE 12/08/11

**PROPOSED  
PRELIMINARY  
DESIGN**

**NOT FOR  
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**SIERRA SUBDIVISION**  
PACKAGE 1A  
GENERAL  
SURVEY CONTROL DATA  
SHEET 3 OF 4

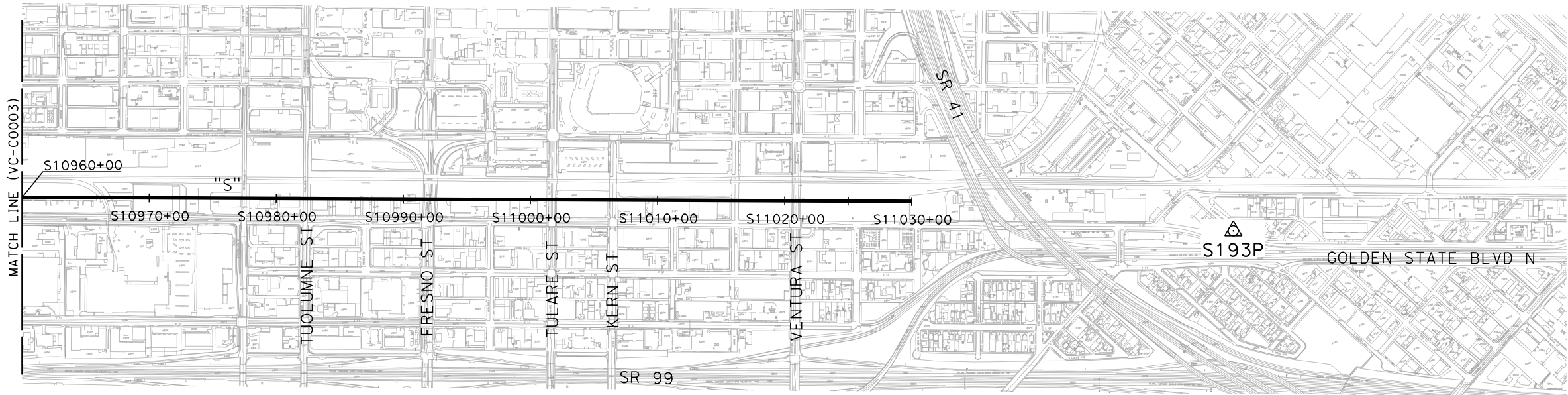
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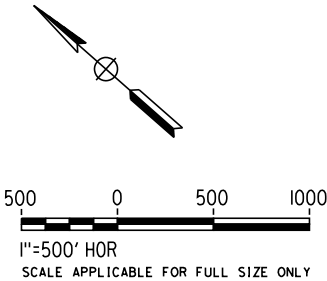
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NOTES:

1. DATA SHOWN HEREON IS BASED ON SURVEY CONTROL MONUMENT DATA SHEETS AND MAP ON FILE IN THE OFFICE OF THE CHSRA
2. HORIZONTAL CONTROL DATUM:  
  
THE HORIZONTAL GRID COORDINATES SHOWN HEREIN ARE BASED UPON THE NORTH AMERICAN DATUM OF 1983 (NAD83). CALIFORNIA STATE PLANE COORDINATE SYSTEM, ZONE IV, US SURVEY FEET
3. VERTICAL CONTROL DATUM:  
THE VERTICAL CONTROL DATUM FOR THE ELEVATIONS SHOWN HEREIN ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), US SURVEY FEET
4. PROJECTION:  
  
LAMBERT CONIC PROJECTION



POINT #	DESCRIPTION	N	E	ELEV	LOCATION
S193P	FOUND STANDARD CHSRA 2-1/2" BRONZE DISK IN 1" IRON PIPE IN 8" CONCRETE PIER STAMPED "S193P LS4430 2010"	ZONE 4		286.04	IN THE CITY OF FRESNO, COUNTY OF FRESNO, 450 FEET SOUTHERLY ALONG CHERRY AVENUE FROM THE INTERSECTION OF CALIFORNIA AVENUE, 7.8 FEET WESTERLY OF THE WEST CURB FACE OF CHERRY AVENUE, 11.8 FEET NORTHEASTERLY OF THE NORTHEASTERLY CURB FACE OF G STREET.
		2146202.84	6332518.62		



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY S. CHRISTENSEN
DRAWN BY S. AVILES
CHECKED BY J. LABANOWSKI
IN CHARGE G. HORTON
DATE 12/08/11

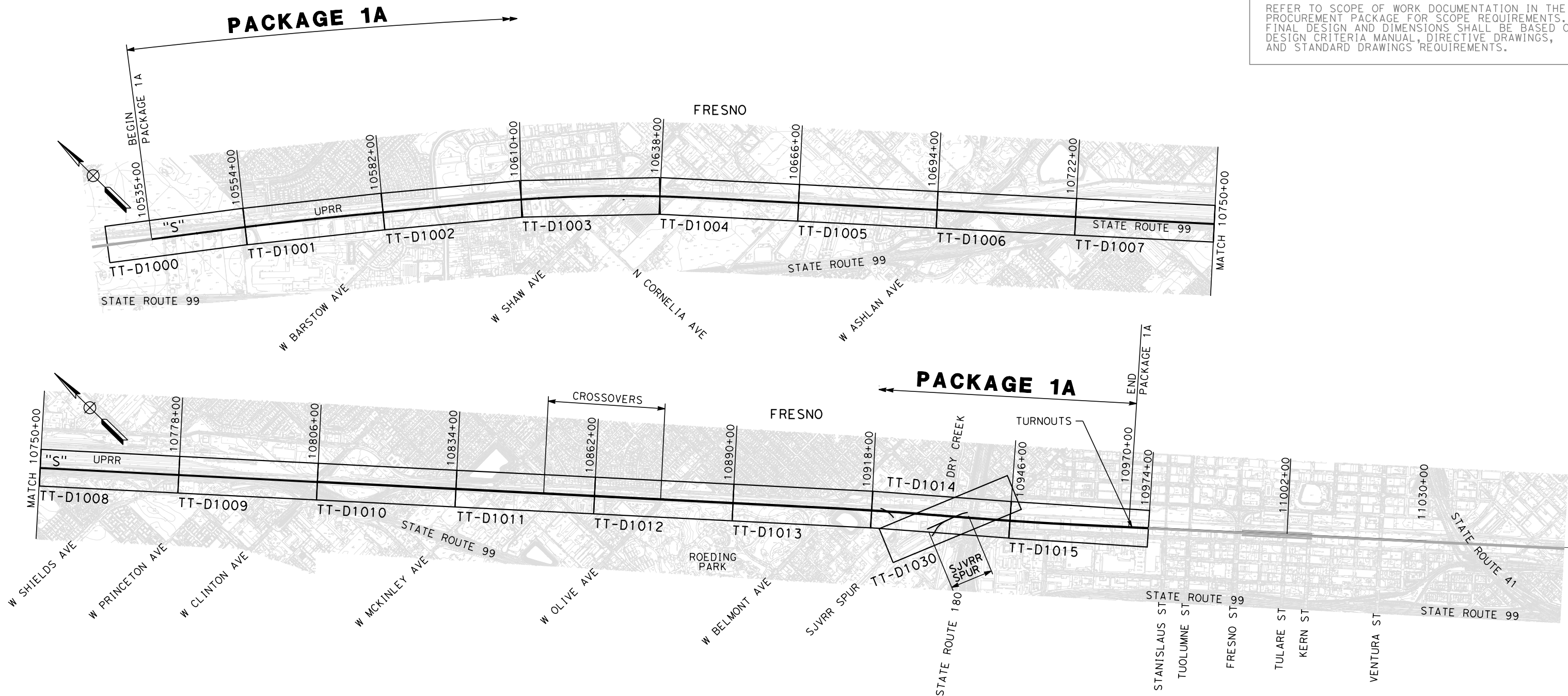
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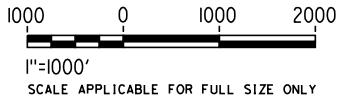
CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION  
PACKAGE 1A  
GENERAL  
SURVEY CONTROL DATA  
SHEET 4 OF 4

CONTRACT NO.
DRAWING NO. VS-C0004
SCALE AS SHOWN
SHEET NO.

Paul.Tonkin 2/15/2012 5:20:54 PM CAHSR-r1.tbl PDF\_half\_black\_200dpi.ctb Internal Project Data\4-03 Drawings\4-03-03 30% Design\4-03-03-05 Design Sheets\Rail\1A



REFER TO SCOPE OF WORK DOCUMENTATION IN THE PROCUREMENT PACKAGE FOR SCOPE REQUIREMENTS. FINAL DESIGN AND DIMENSIONS SHALL BE BASED ON DESIGN CRITERIA MANUAL, DIRECTIVE DRAWINGS, AND STANDARD DRAWINGS REQUIREMENTS.



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 02/17/12

PROPOSED  
PRELIMINARY  
DESIGN  
  
NOT FOR  
CONSTRUCTION

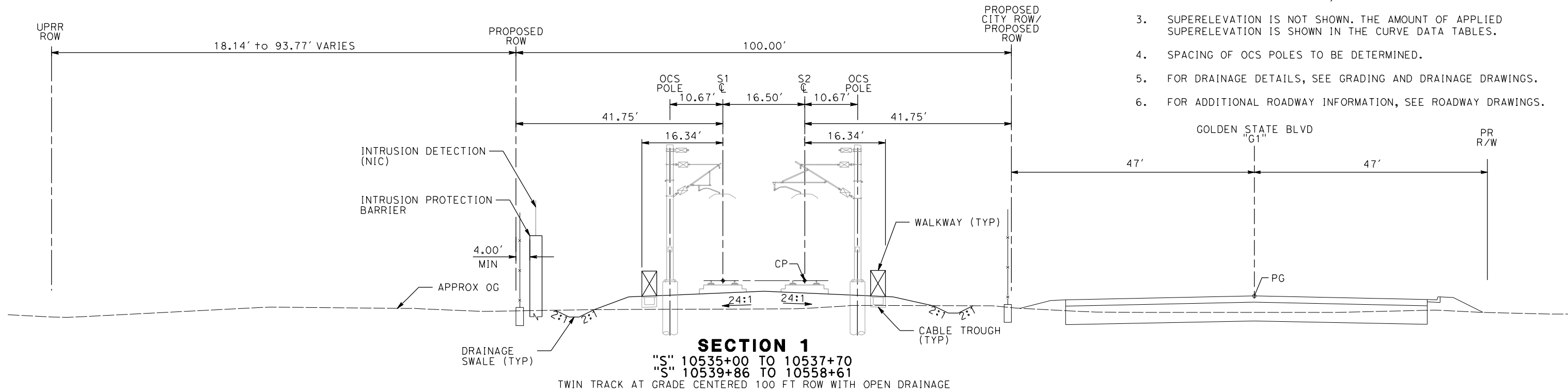


CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION  
PACKAGE 1A  
TRACK GUIDEWAY  
KEY MAP

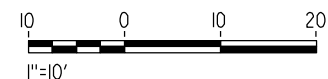
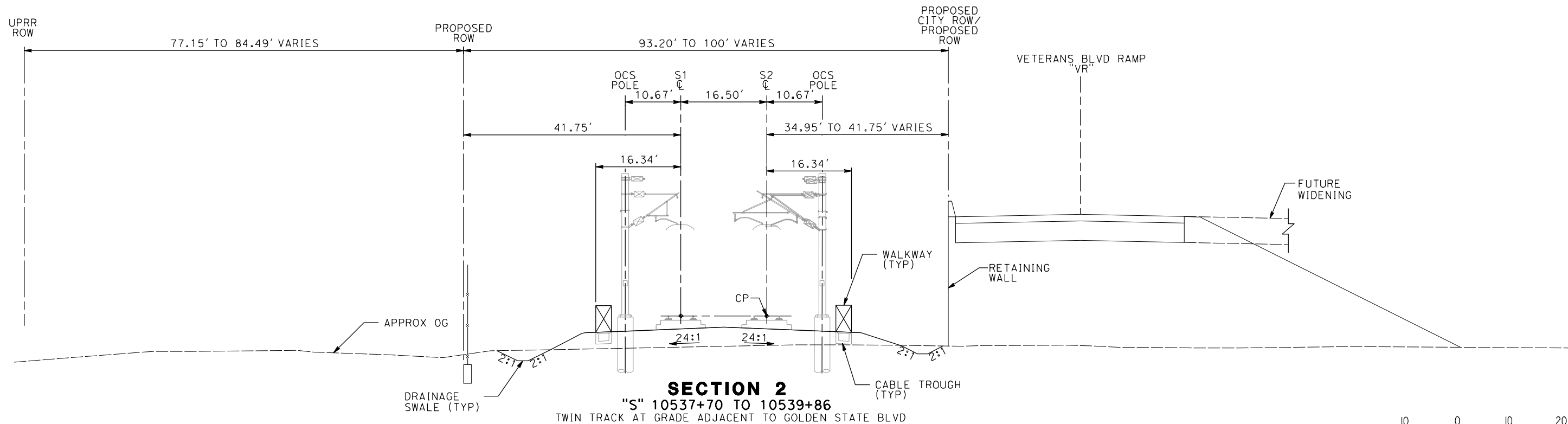
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DRAWING NO. TT-B0001
SCALE AS SHOWN
SHEET NO.



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- NOTES:**
1. TRACKFORM SHOWN IS INDICATIVE.
  2. FOR STRUCTURE DIMENSIONS, SEE STRUCTURAL CROSS SECTIONS.
  3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.
  4. SPACING OF OCS POLES TO BE DETERMINED.
  5. FOR DRAINAGE DETAILS, SEE GRADING AND DRAINAGE DRAWINGS.
  6. FOR ADDITIONAL ROADWAY INFORMATION, SEE ROADWAY DRAWINGS.



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY H. SULLIVAN
CHECKED BY A. BOONE
IN CHARGE A. BOONE
DATE 01/09/2012

<b>PROPOSED PRELIMINARY DESIGN</b>
<b>NOT FOR CONSTRUCTION</b>

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

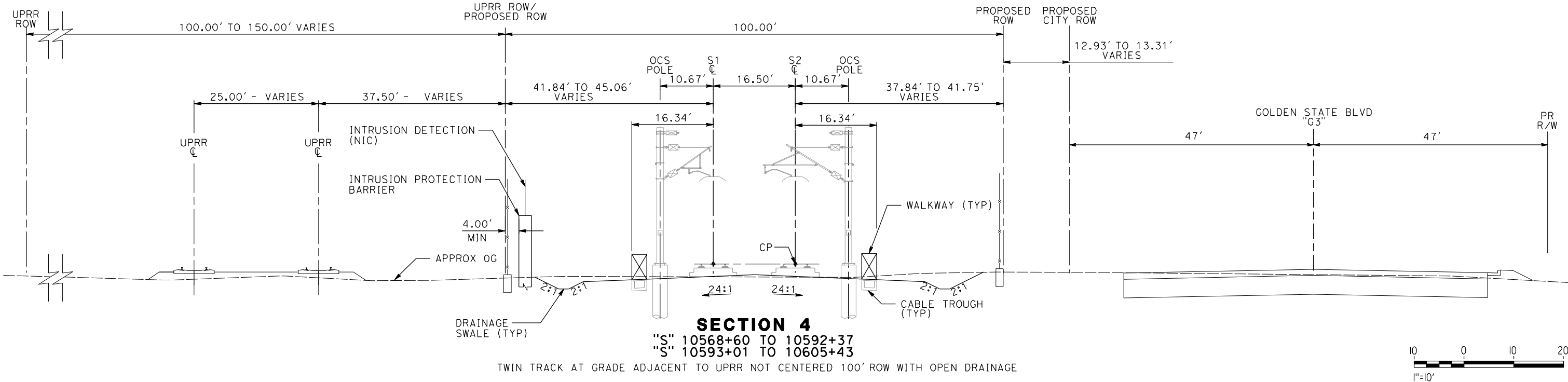
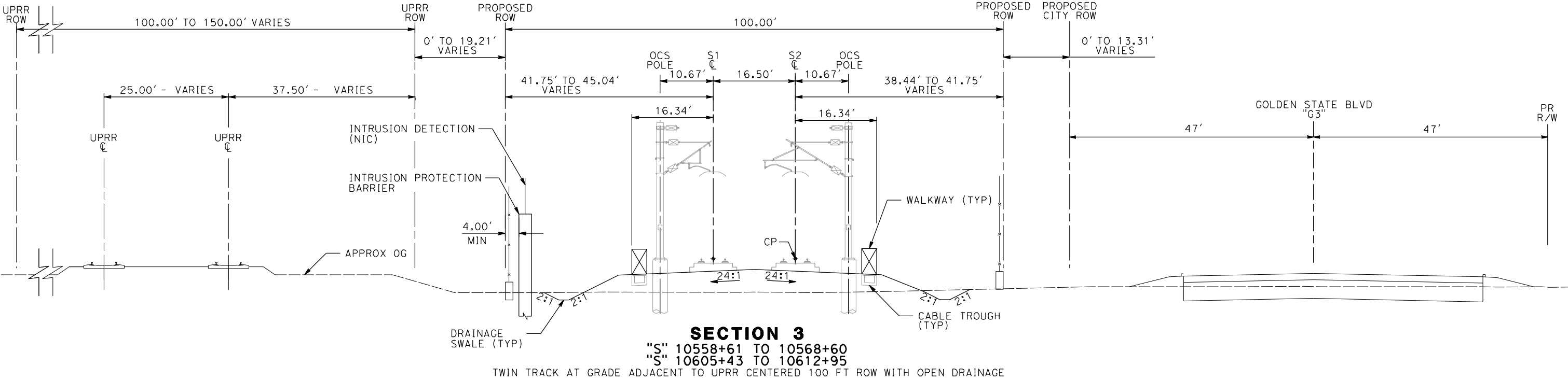
**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION  
PACKAGE 1A  
TRACK GUIDEWAY  
TYPICAL SECTIONS**

CONTRACT NO.
DRAWING NO. TT-D3001
SCALE AS SHOWN
SHEET NO.

NOTES:  
1. FOR ADDITIONAL NOTES SEE DRAWING TT-D001.



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY H. SULLIVAN
CHECKED BY A. BOONE
IN CHARGE A. BOONE
DATE 01/09/2012

PROPOSED  
PRELIMINARY  
DESIGN  
  
NOT FOR  
CONSTRUCTION

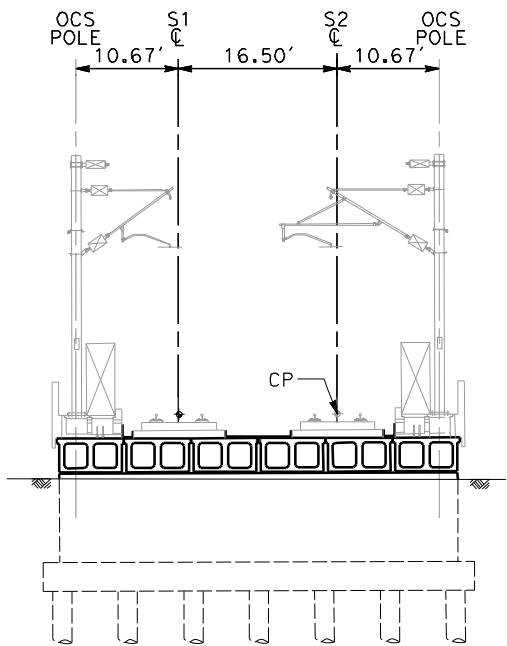


CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION  
PACKAGE 1A  
TRACK GUIDEWAY  
TYPICAL SECTIONS

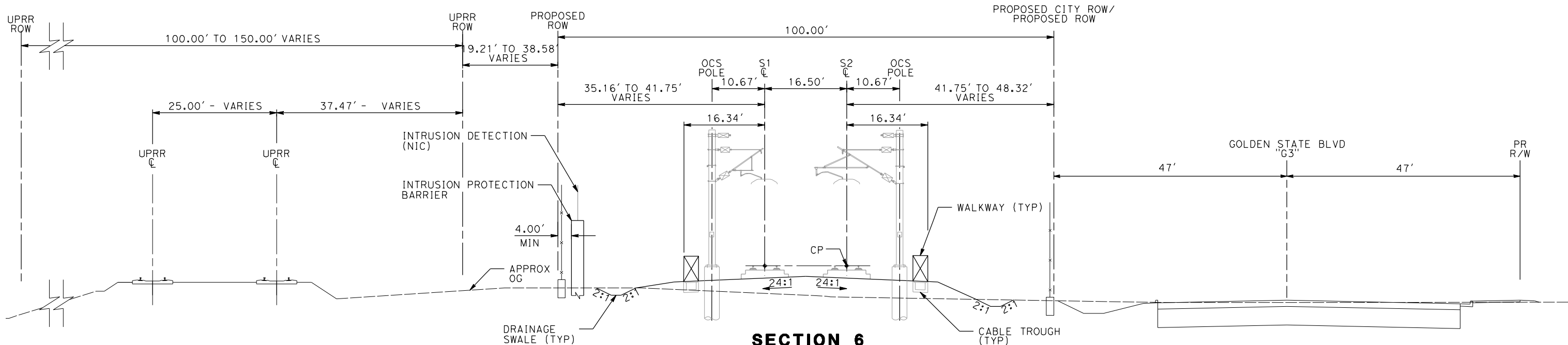
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DRAWING NO. TT-D3002
SCALE AS SHOWN
SHEET NO.

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**NOTES:**  
1. FOR ADDITIONAL NOTES, SEE DRAWING TT-D001.



**SECTION 5**  
"S" 10592+37 TO 10593+01  
TWIN TRACK OVER HERNDON CANAL



**SECTION 6**  
"S" 10612+95 TO 10638+00  
TWIN TRACK AT GRADE ADJACENT TO GOLDEN STATE BLVD CENTERED 100 FT ROW WITH OPEN DRAINAGE



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY H. SULLIVAN
CHECKED BY A. BOONE
IN CHARGE A. BOONE
DATE 01/09/2012

**PROPOSED  
PRELIMINARY  
DESIGN**

**NOT FOR  
CONSTRUCTION**



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2020 L Street, Suite 300  
Sacramento, CA 95811





**CALIFORNIA**  
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT**

**SIERRA SUBDIVISION**

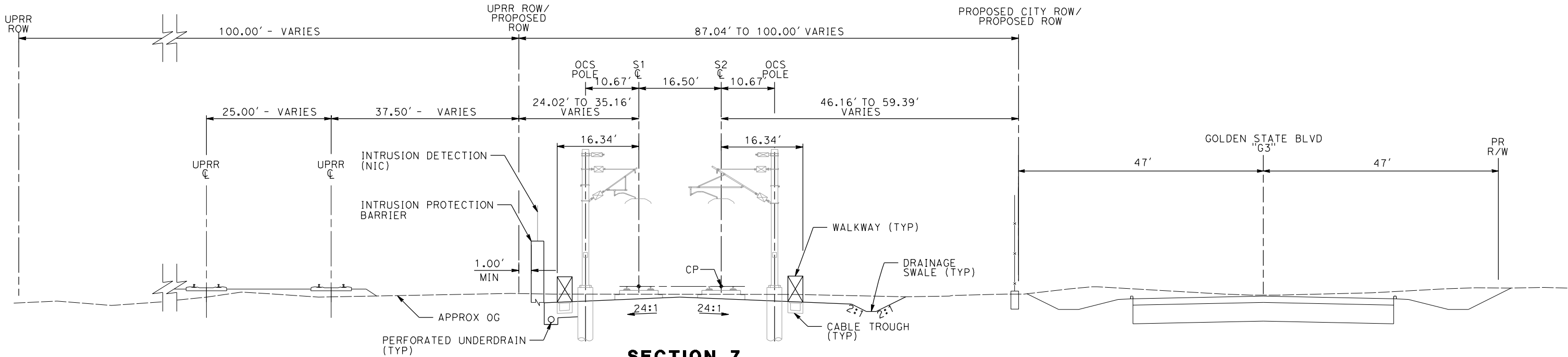
PACKAGE 1A

TRACK GUIDEWAY

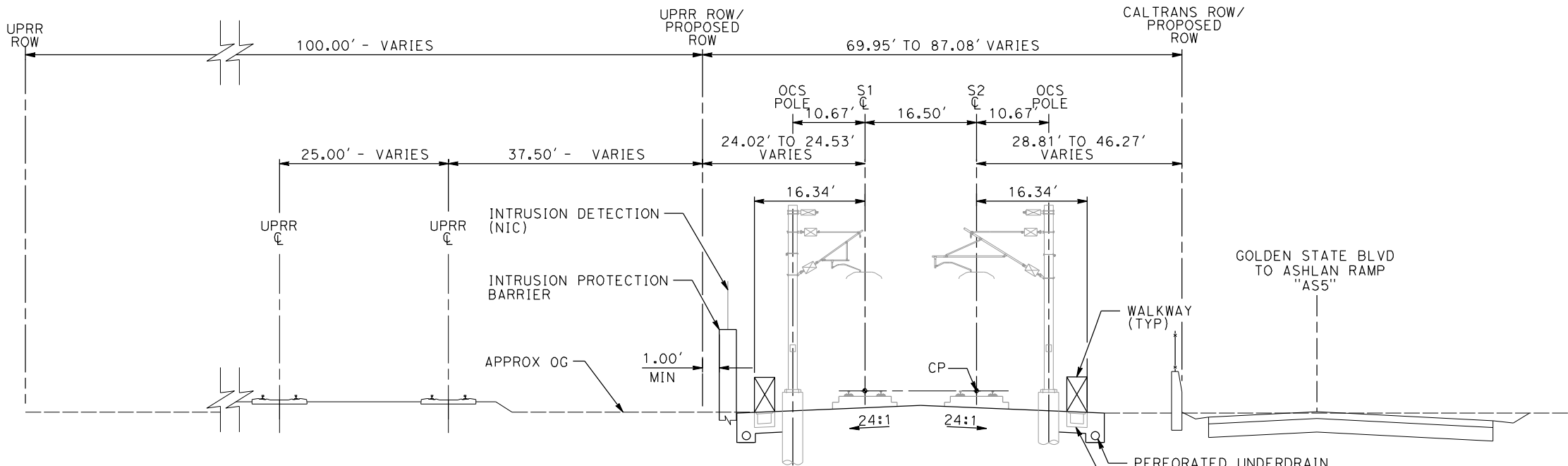
TYPICAL SECTIONS

CONTRACT NO.
DRAWING NO. TT-D3003
SCALE AS SHOWN
SHEET NO.

NOTES:  
1. FOR ADDITIONAL NOTES, SEE DRAWING TT-D001.



**SECTION 7**  
"S" 10638+00 TO 10693+50  
TWIN TRACK AT GRADE ADJACENT TO GOLDEN STATE BLVD NOT CENTERED 100 FT ROW WITH OPEN DRAINAGE



**SECTION 8**  
"S" 10693+50 TO 10724+80  
TWIN TRACK AT GRADE ADJACENT TO NB ASHLAND AVE OFF RAMP



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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY H. SULLIVAN
CHECKED BY A. BOONE
IN CHARGE A. BOONE
DATE 01/09/2012

**PROPOSED  
PRELIMINARY  
DESIGN**

**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

**CH2MHILL**

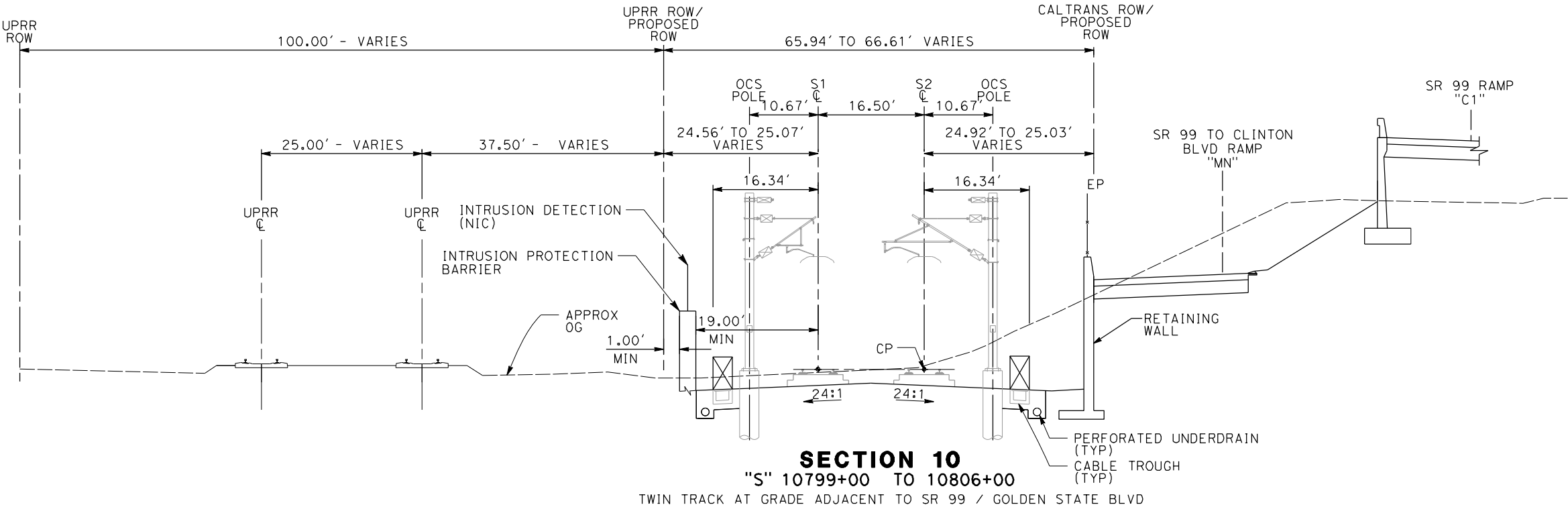
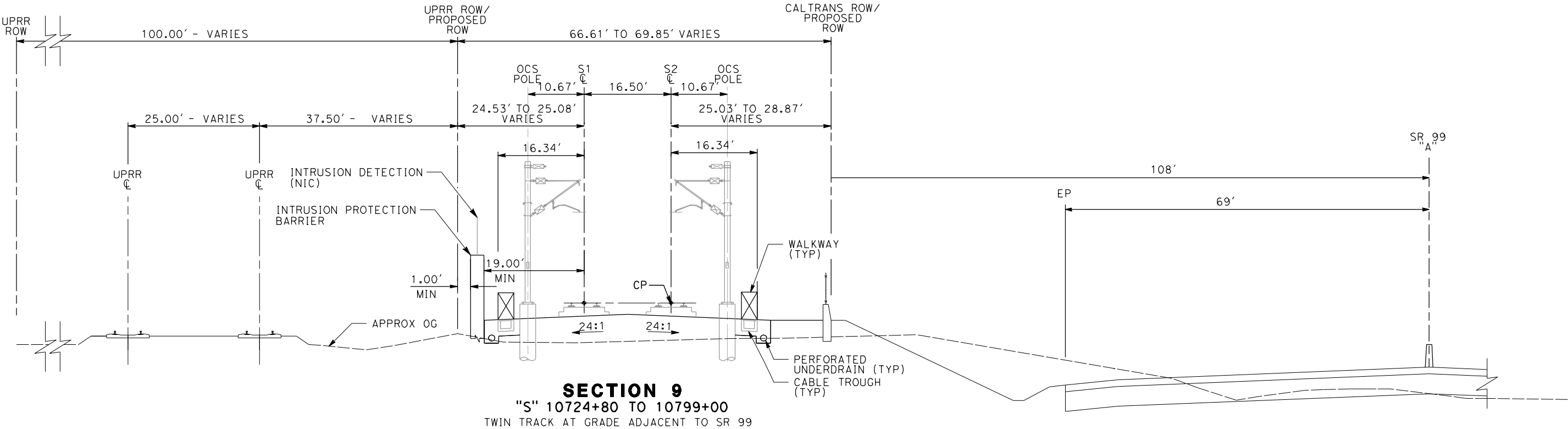


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION  
PACKAGE 1A  
TRACK GUIDEWAY  
TYPICAL SECTIONS**

CONTRACT NO.
DRAWING NO. TT-D3004
SCALE AS SHOWN
SHEET NO.



NOTES:  
1. FOR ADDITIONAL NOTES, SEE DRAWING TT-D001.



\\usscr1fp001\Cadd\CHSR\60022962\Task-03\_Merced-Fresno\Cadd\Rail\Sheet\1S-TT-D3005.dgn  
1/20/2012 11:29:06 AM CAHSR-r1.tbl CHSR\_half\_black3.plt  
sullivan

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY H. SULLIVAN
CHECKED BY A. BOONE
IN CHARGE A. BOONE
DATE 01/09/2012

<b>PROPOSED PRELIMINARY DESIGN</b>
<b>NOT FOR CONSTRUCTION</b>

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

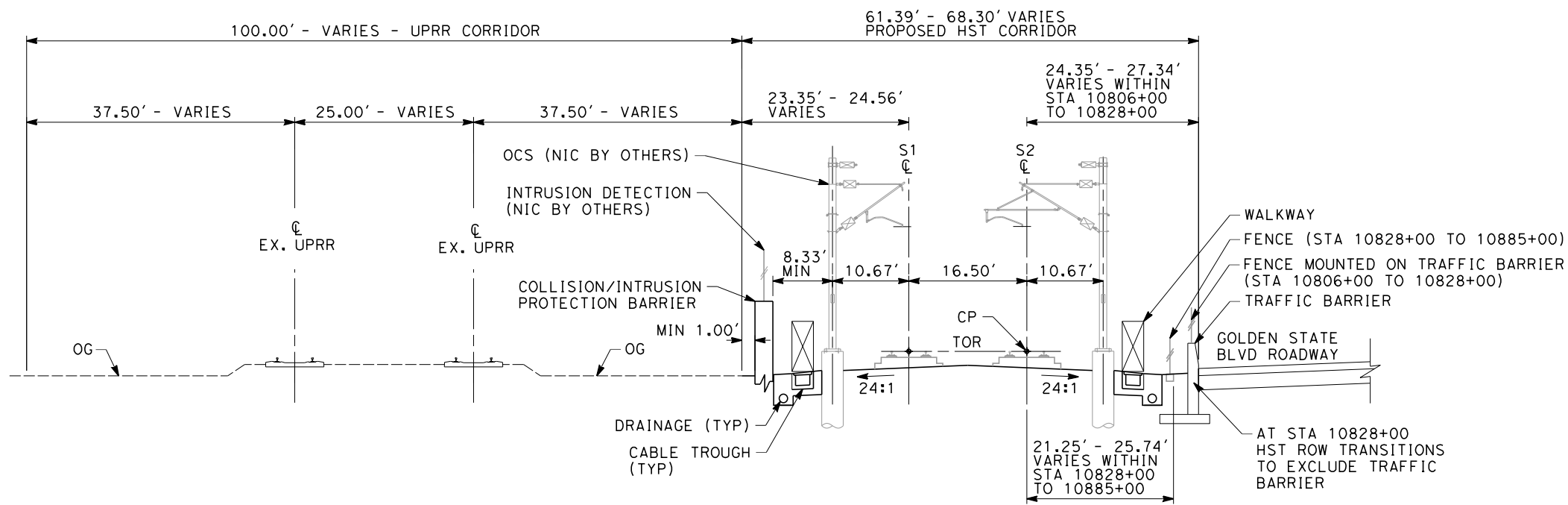
**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION**  
PACKAGE 1A  
TRACK GUIDEWAY  
TYPICAL SECTIONS

CONTRACT NO.
DRAWING NO. TT-D3005
SCALE AS SHOWN
SHEET NO.

Paul.Tonkin 2/16/2012 1:17:31 PM CAHSR-r1.tbl PDF\_half\_black\_200dpi.ctb \\global\americas\Jobs\5-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-03-05 Design Sheets\Rail\A

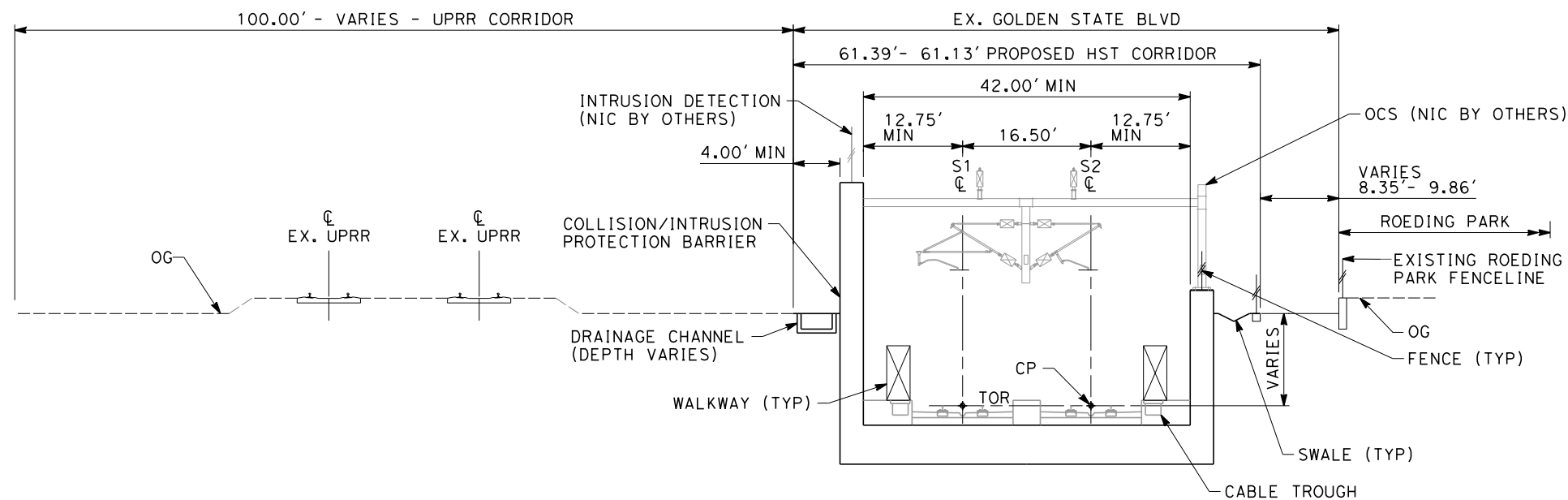


### SECTION 11

"S" 10806+00 THROUGH 10885+00  
TWIN TRACK AT GRADE ADJACENT TO UPRR

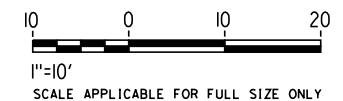
#### NOTES:

1. TRACKFORM SHOWN FOR INFORMATION ONLY (NIC BY OTHERS).
2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL TYPICAL SECTIONS.
3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.
4. COLLISION/INTRUSION PROTECTION BARRIER REQUIRED FROM STA 10806+00 - 10950+30



### SECTION 12

"S" 10885+00 THROUGH 10902+50  
TWIN TRACK IN GRADE SEPARATION ADJACENT  
TO UPRR AND ROEDING PARK



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 02/17/12

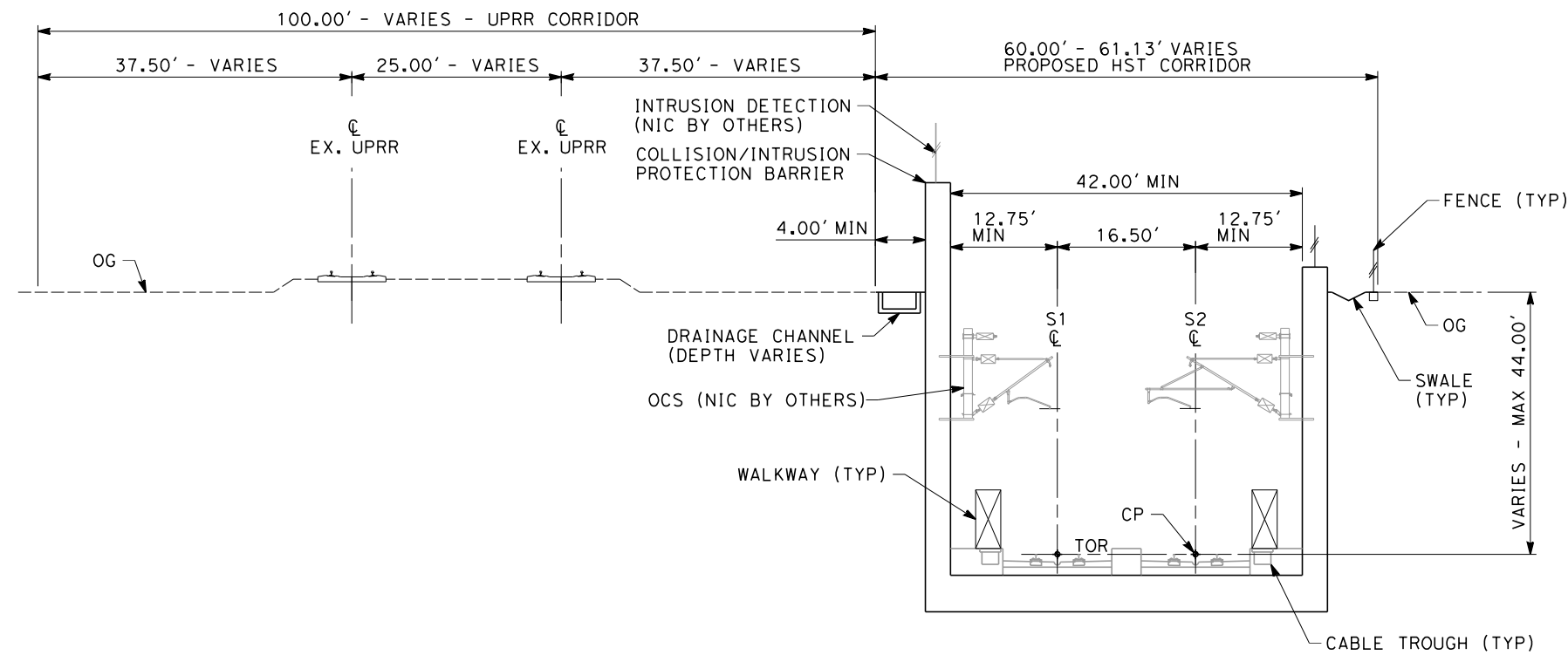
<b>PROPOSED PRELIMINARY DESIGN</b>
<b>NOT FOR CONSTRUCTION</b>



<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT</b>
<b>SIERRA SUBDIVISION</b>
PACKAGE 1A
TRACK GUIDEWAY
TYPICAL SECTIONS

CONTRACT NO.
DRAWING NO. TT-D3006
SCALE AS SHOWN
SHEET NO.

Paul.Tonkin 2/16/2012 1:19:20 PM CAHSR-r1.tbl PDF\_half\_black\_200dpi.plt\\global\\americas\\Jobs\\S-F\\131000\\131577\\4 Internal Project Data\\4-03 Drawings\\4-03-03 30% Design\\4-03-03-05 Design Sheets\\Rail\\1

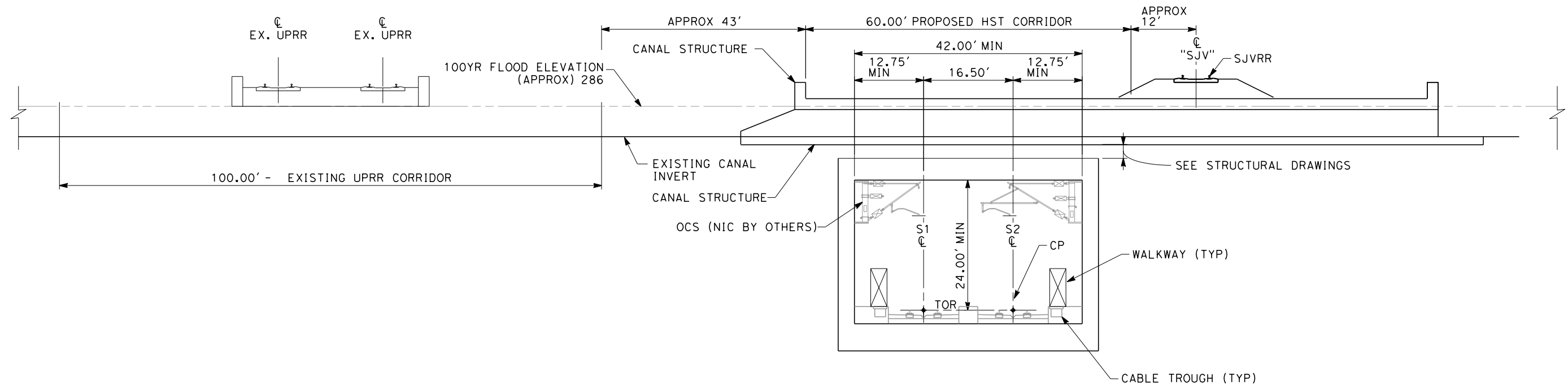


**NOTES:**

1. TRACKFORM SHOWN FOR INFORMATION ONLY (NIC BY OTHERS).
2. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.
3. FOR STRUCTURAL DIMENSIONS SEE STRUCTURAL TYPICAL SECTIONS.
4. COLLISION/INTRUSION PROTECTION BARRIER REQUIRED FROM STA 10806+00 - 10950+30

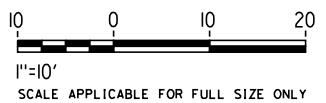
**SECTION 13**

"S" 10902+50 THROUGH 10936+55  
"S" 10940+15 THROUGH 10951+00  
ADJACENT TO UPRR



**SECTION 14**

"S" 10934+05  
TWIN TRACK IN GRADE SEPARATION UNDER CANAL



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 02/17/12

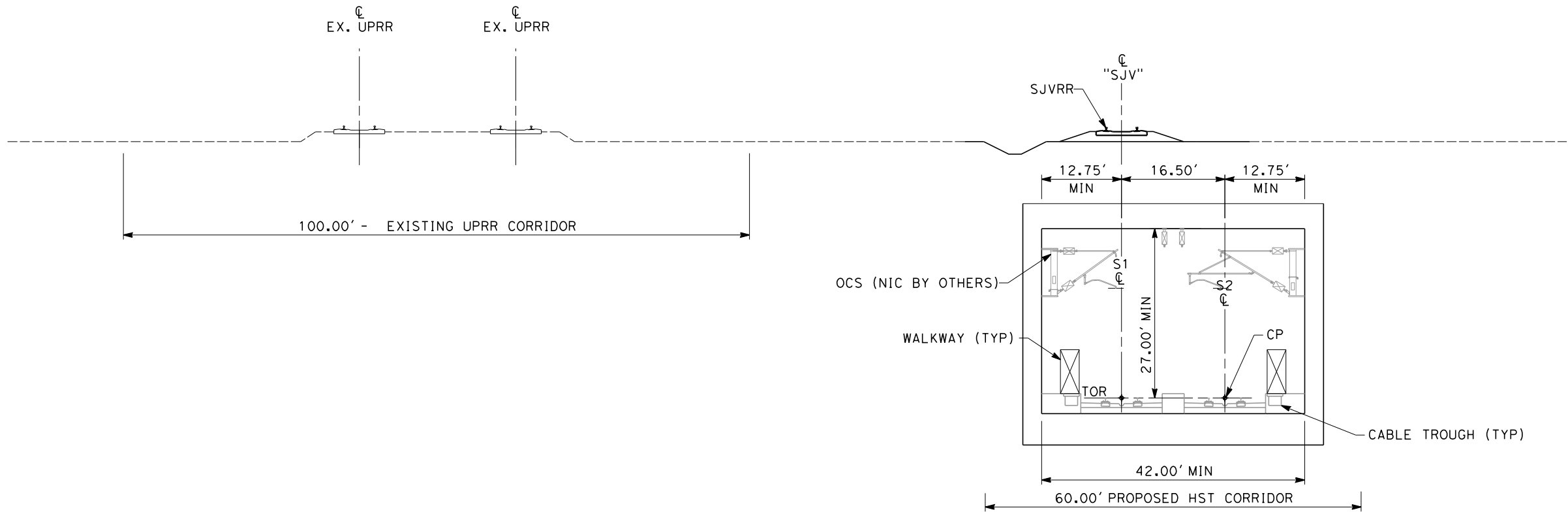
<b>PROPOSED PRELIMINARY DESIGN</b>
<b>NOT FOR CONSTRUCTION</b>



<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT</b>
<b>SIERRA SUBDIVISION</b>
PACKAGE 1A
TRACK GUIDEWAY
TYPICAL SECTIONS

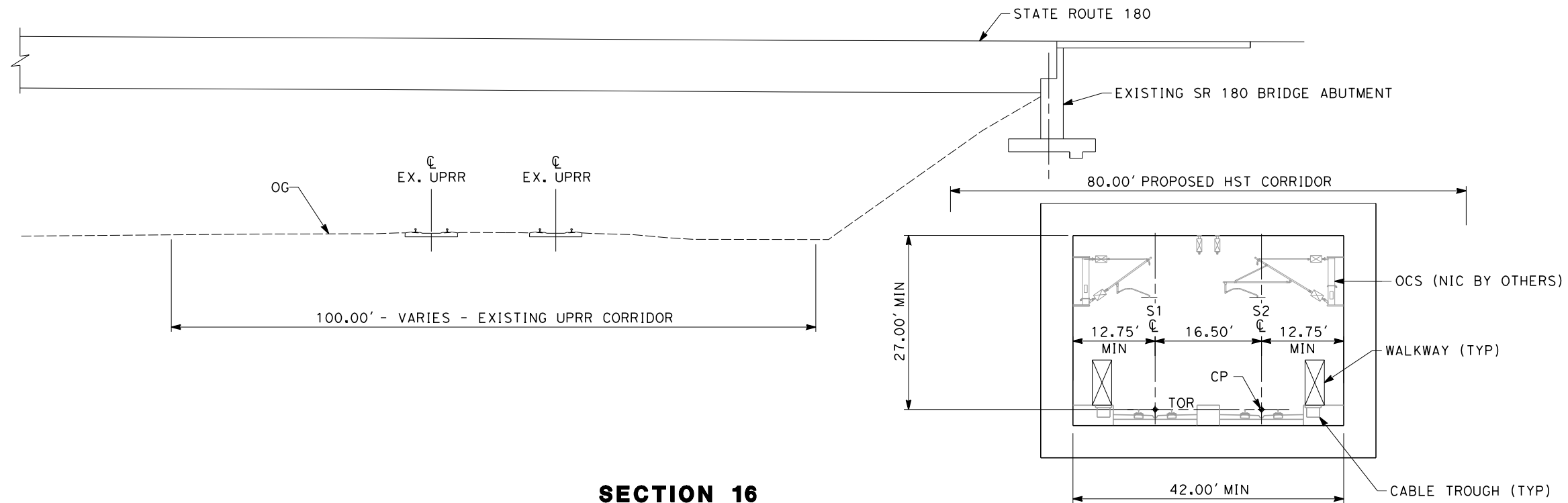
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DRAWING NO. TT-D3007
SCALE AS SHOWN
SHEET NO.

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### SECTION 15

"S" 10934+90  
TWIN TRACK UNDER SJVRR

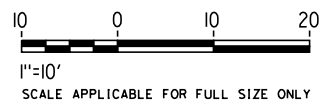


### SECTION 16

"S" 10936+55 THROUGH 10940+15  
TWIN TRACK IN BOX ADJACENT TO SR-180 ABUTMENT

#### NOTES:

1. TRACKFORM SHOWN FOR INFORMATION ONLY (NIC BY OTHERS).
2. FOR STRUCTURAL DIMENSIONS SEE STRUCTURAL TYPICAL SECTIONS.
3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 02/17/12

**PROPOSED  
PRELIMINARY  
DESIGN**

**NOT FOR  
CONSTRUCTION**

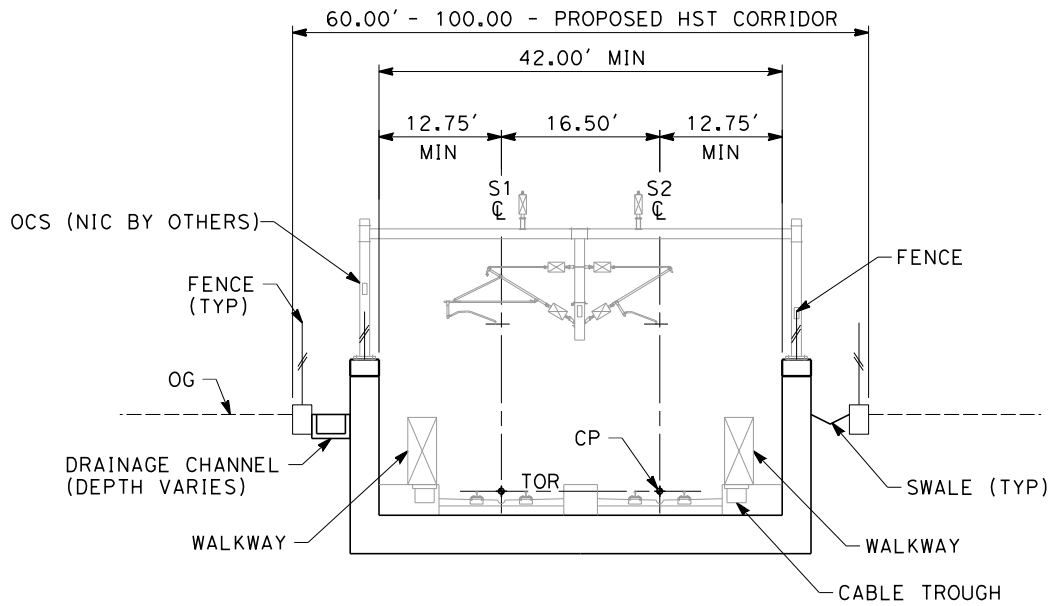


**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**SIERRA SUBDIVISION**  
PACKAGE 1A  
TRACK GUIDEWAY  
TYPICAL SECTIONS

CONTRACT NO.
DRAWING NO. TT-D3008
SCALE AS SHOWN
SHEET NO.

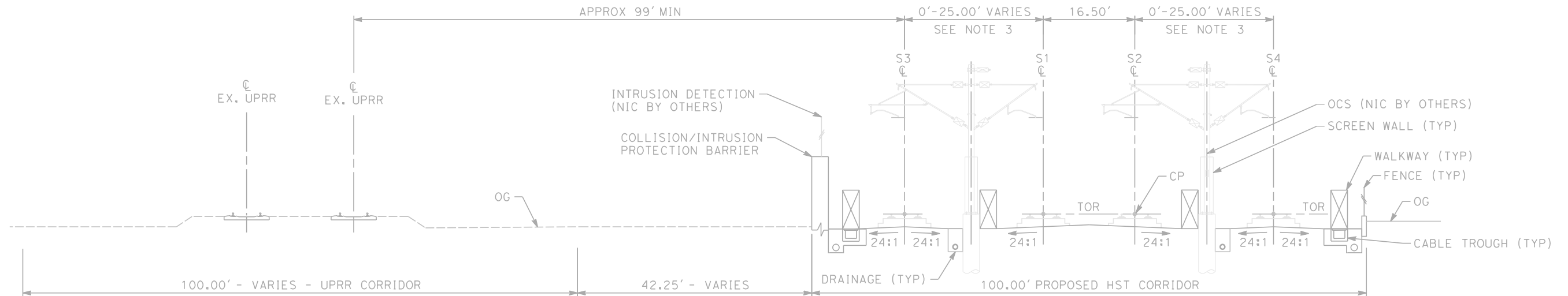


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**SECTION 17**

(PACKAGE 1A)  
"S" 10951+00 THROUGH 10970+00  
TWIN TRACK IN GRADE SEPARATION

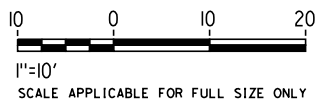


**SECTION 18**

(PACKAGE 1B)  
"S" 10970+00 THROUGH 10991+52  
"S" 10992+67 THROUGH 10992+95  
"S" 11007+05 THROUGH 11007+80  
"S" 11026+00 THROUGH 11030+00  
4 TRACK AT GRADE STATION APPROACH

**NOTES:**

1. TRACKFORM SHOWN FOR INFORMATION ONLY (NIC BY OTHERS).
2. FOR STRUCTURAL DIMENSIONS SEE STRUCTURAL TYPICAL SECTIONS.
3. DISTANCE BETWEEN TRACKS VARIES FROM 0.00'-25.00' THROUGH TURNOUTS AND REVERSE TO PARALLEL.
4. COLLISION/INTRUSION PROTECTION BARRIER REQUIRED FROM STA 10806+00 - 10950+30 AND STA 10990+70 - 11030+00
5. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 02/17/12

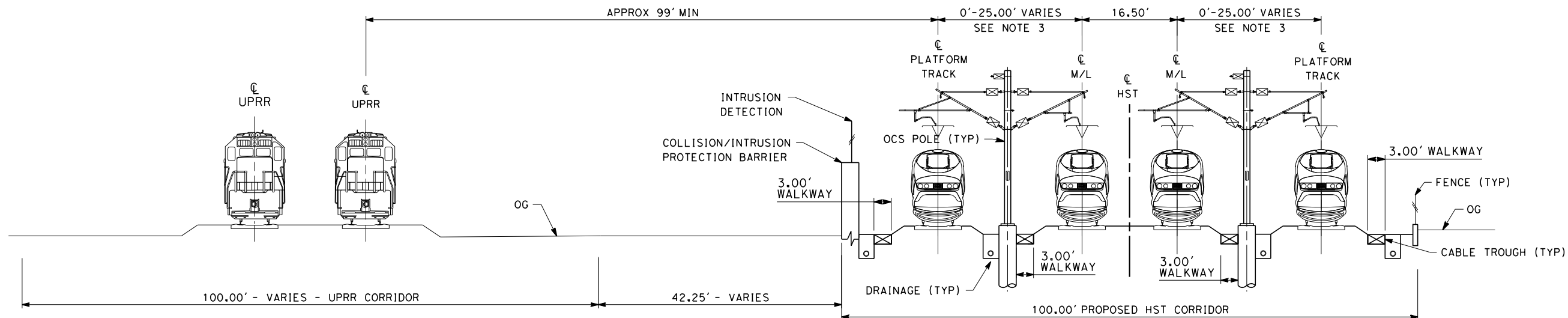
**PROPOSED  
PRELIMINARY  
DESIGN**

**NOT FOR  
CONSTRUCTION**



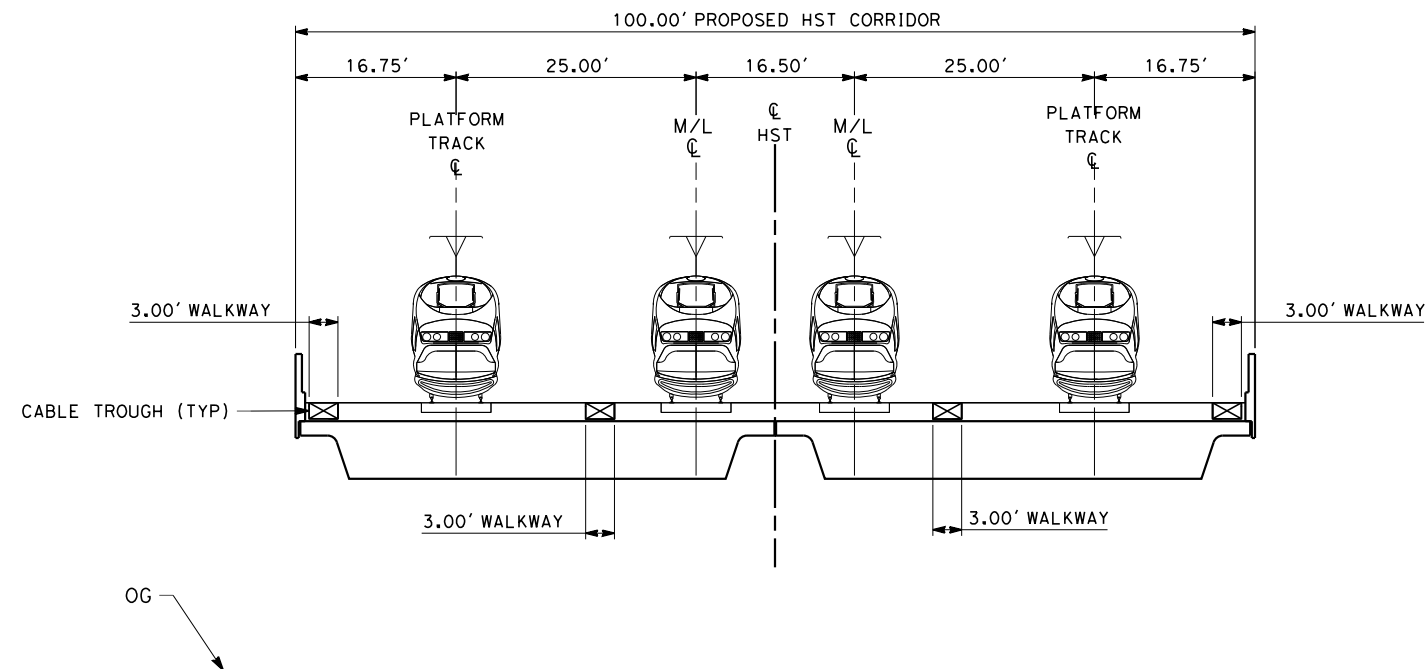
<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION</b>		CONTRACT NO.
PACKAGE 1A TRACK GUIDEWAY TYPICAL SECTIONS		DRAWING NO. TT-D3009
		SCALE AS SHOWN
		SHEET NO.

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### SECTION 1

TWIN TRACK AT GRADE 100FT ROW ADJACENT TO UPRR  
STA 257+25 THROUGH STA 278+77  
STA 279+92 THROUGH STA 280+20  
STA 294+30 THROUGH STA 295+05  
STA 313+25 THROUGH STA 317+25



### SECTION 2

4 TRACK - BRIDGE STRUCTURE  
STA 278+77 THROUGH STA 279+92

#### NOTES:

1. TRACKFORM SHOWN IS INDICATIVE
2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
3. DISTANCE BETWEEN TWO TRACKS VARIES FROM 0-25.00' THROUGH TURNOUTS AND REVERSE TO PARALLEL.



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 02/15/12

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



**CALIFORNIA**  
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**

FRESNO SUBSECTION  
ALIGNMENT F1  
CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CB3010
SCALE AS SHOWN
SHEET NO. 18 OF 23



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NOTES:  
1. THE S1 LINE IS OFFSET TO S2 LINE BY 16.50 FEET.

TRACK GEOMETRY DATA ALONG SOUTHBOUND(S2) TRACK CENTERLINE														
CURVE NO.	DESCRIPTION	STATION	NORTHING	EASTING	BEARING	DISTANCE (FT)	R (FT)	Lc (FT)	SPIRAL TYPE	Ls (FT)	Ea (in)	Eu (in)	V (MPH)	
101	POB	S10535+00.00	2184645.09	6297590.88	S51°24'12"E	919.91							250	
	TS	S10544+19.91	2184071.22	6298309.85									250	
	SC	S10556+19.91	2183320.23	6299245.81			70000.00	1202.39	HALF SINE	1200.00		3.00	0.57	250
	CS	S10568+22.31	2182554.13	6300172.52										250
	ST	S10580+22.31	2181776.12	6301086.14	S49°26'13"E	1333.20			HALF SINE	1200.00			250	
TS	S10593+55.51	2180909.17	6302098.96	250										
102	SC	S10613+55.51	2179592.62	6303604.36			28000.00	2109.81	HALF SINE	2000.00		6.00	2.93	250
	CS	S10634+65.32	2178107.16	6305101.90										250
	ST	S10654+65.32	2176612.48	6306430.60	S41°01'38"E	24843.38			HALF SINE	2000.00			250	
	TS	S10903+08.70	2157870.69	6322738.24									250	
103	SC	S10913+08.70	2157114.93	6323393.08			71400.00	1002.81	HALF SINE	1000.00		1.50	1.21	220
	CS	S10923+11.52	2156349.26	6324040.66										220
	SS	S10933+11.52	2155578.08	6324677.27			71416.50	1166.50	HALF SINE	1000.00		1.50	1.21	220
	SC	S10943+11.52	2154806.89	6325313.88										220
104	CS	S10954+78.01	2153917.10	6326068.18					HALF SINE	1000.00			220	
	ST	S10964+78.01	2153162.84	6326724.75									220	
		POT	S10974+00.00	2154806.89	6335459.98	S41°09'29"E	921.99							250

REV	DATE	BY	CHK	APP	DESCRIPTION	

DESIGNED BY A. SHIELDS
DRAWN BY H. SULLIVAN
CHECKED BY A. BOONE
IN CHARGE A. BOONE
DATE 02/01/2012

PROPOSED  
PRELIMINARY  
DESIGN  
  
NOT FOR  
CONSTRUCTION



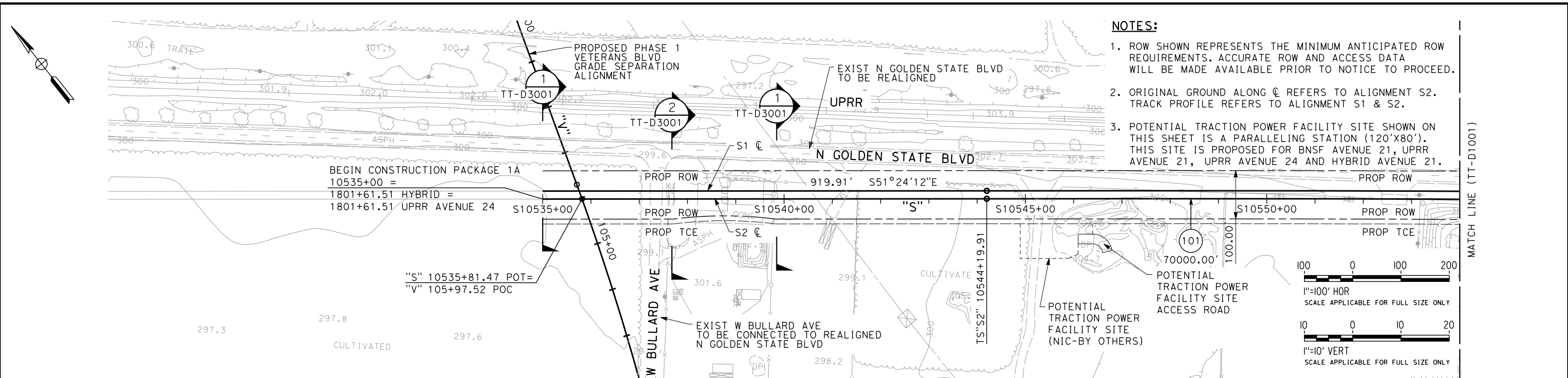
CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION  
PACKAGE 1A  
TRACK GUIDEWAY  
HORIZONTAL ALIGNMENT DATA

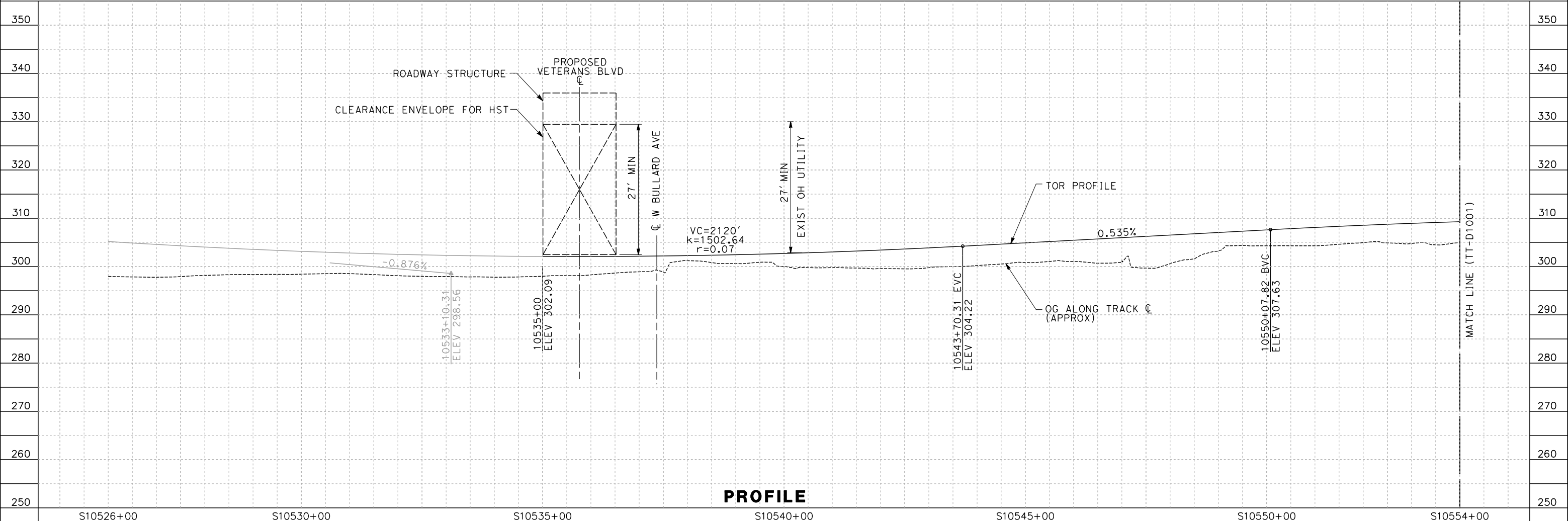
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DRAWING NO. TT-D0001
SCALE AS SHOWN
SHEET NO.




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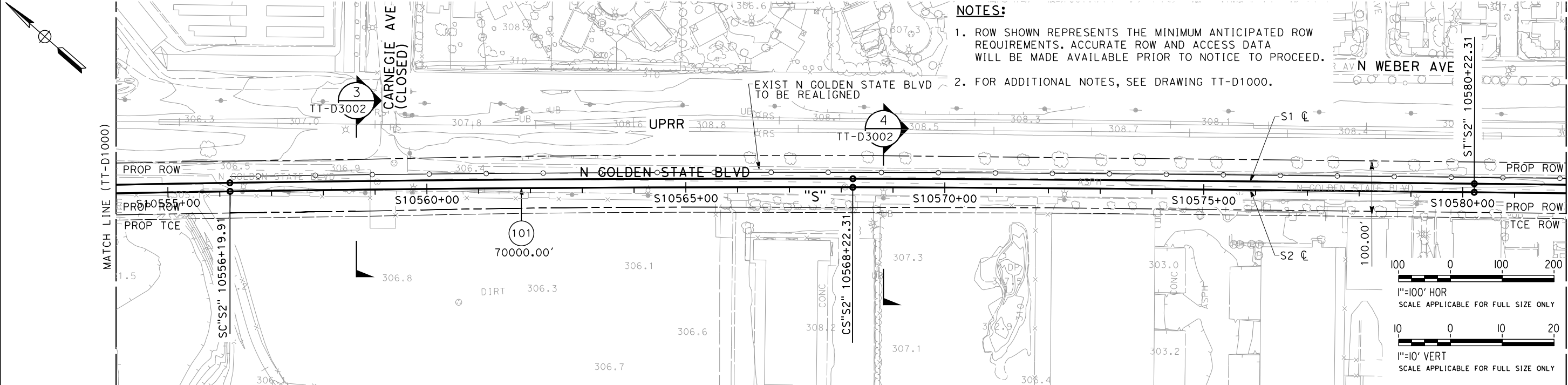
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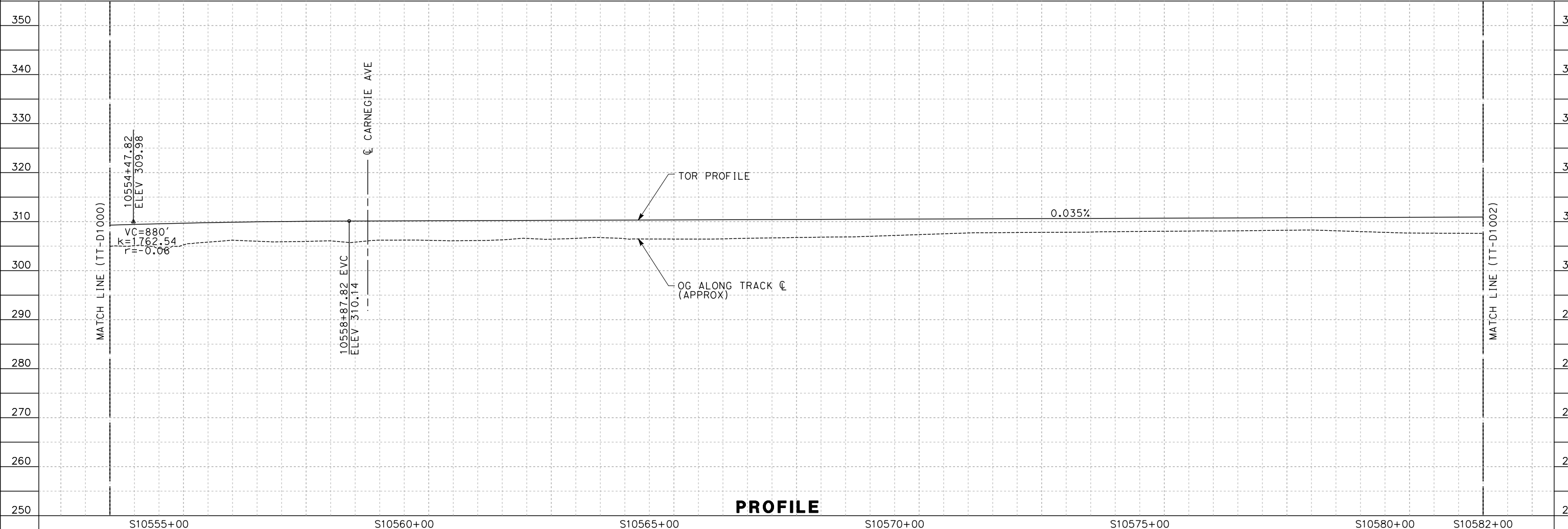
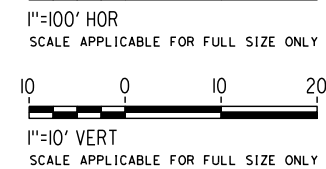
PROFILE

						DESIGNED BY A. SHIELDS	<b>PROPOSED PRELIMINARY DESIGN</b>  <b>NOT FOR CONSTRUCTION</b>	<b>AECOM</b> Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811  <b>CH2MHILL</b>	 <b>CALIFORNIA</b> HIGH-SPEED RAIL AUTHORITY	<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION</b> PACKAGE 1A TRACK GUIDEWAY PLAN AND PROFILE STA. 10535+00 TO 10554+00				CONTRACT NO.	
						DRAWN BY H. SULLIVAN				DRAWING NO. TT-D1000					
						CHECKED BY A. BOONE				SCALE AS SHOWN					
						IN CHARGE A. BOONE									
						DATE 02/01/2012									
REV	DATE	BY	CHK	APP	DESCRIPTION								SHEET NO.		

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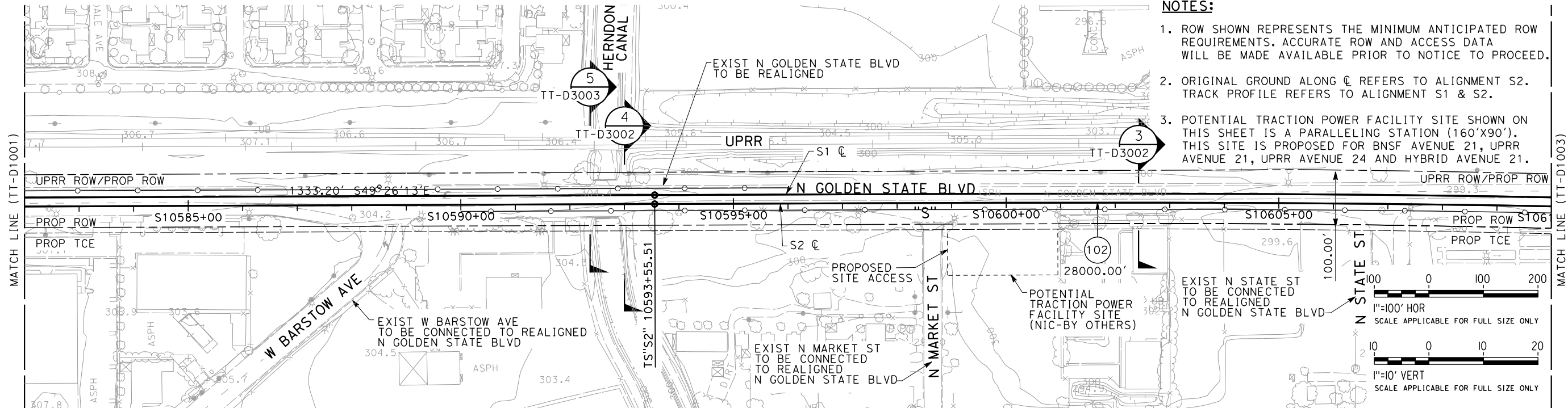
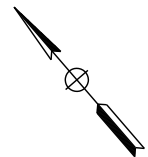


- NOTES:**
1. ROW SHOWN REPRESENTS THE MINIMUM ANTICIPATED ROW REQUIREMENTS. ACCURATE ROW AND ACCESS DATA WILL BE MADE AVAILABLE PRIOR TO NOTICE TO PROCEED.
  2. FOR ADDITIONAL NOTES, SEE DRAWING TT-D1000.



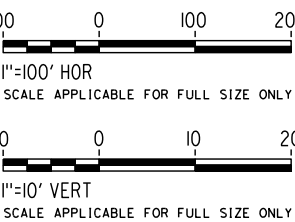
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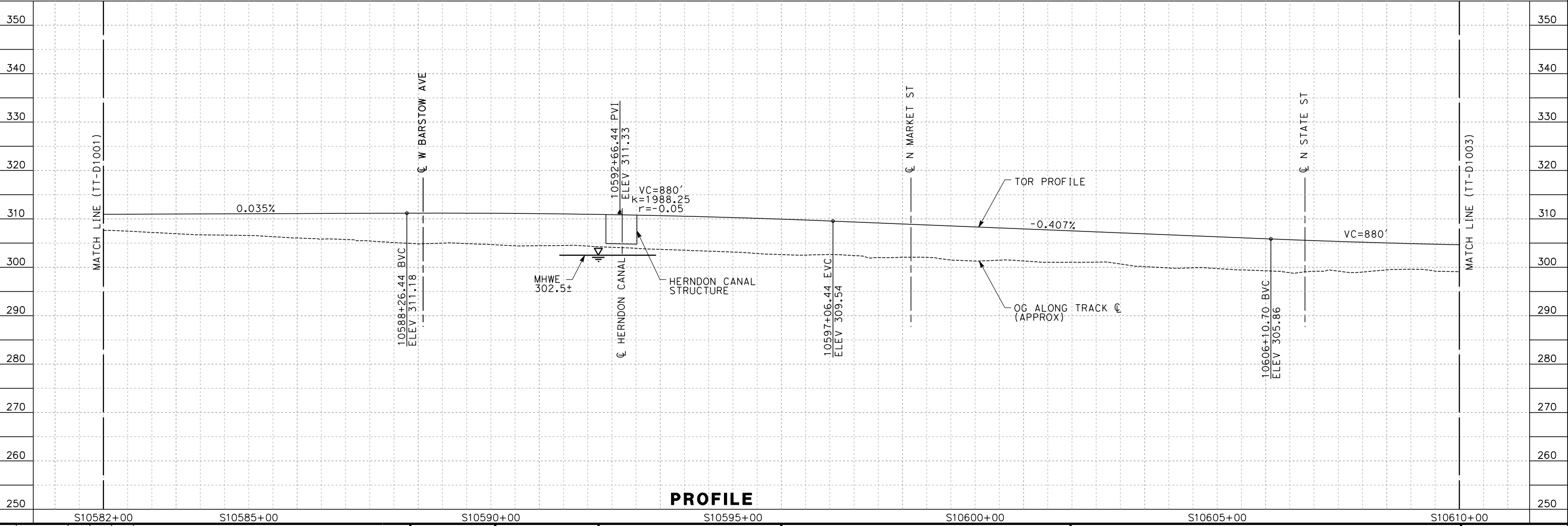


NOTES:

- 1. ROW SHOWN REPRESENTS THE MINIMUM ANTICIPATED ROW REQUIREMENTS. ACCURATE ROW AND ACCESS DATA WILL BE MADE AVAILABLE PRIOR TO NOTICE TO PROCEED.
- 2. ORIGINAL GROUND ALONG C REFERS TO ALIGNMENT S2. TRACK PROFILE REFERS TO ALIGNMENT S1 & S2.
- 3. POTENTIAL TRACTION POWER FACILITY SITE SHOWN ON THIS SHEET IS A PARALLELING STATION (160'X90'). THIS SITE IS PROPOSED FOR BNSF AVENUE 21, UPRR AVENUE 24 AND HYBRID AVENUE 21.



PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY H. SULLIVAN
CHECKED BY A. BOONE
IN CHARGE A. BOONE
DATE 02/01/2012

**PROPOSED  
PRELIMINARY  
DESIGN**

**NOT FOR  
CONSTRUCTION**



Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811





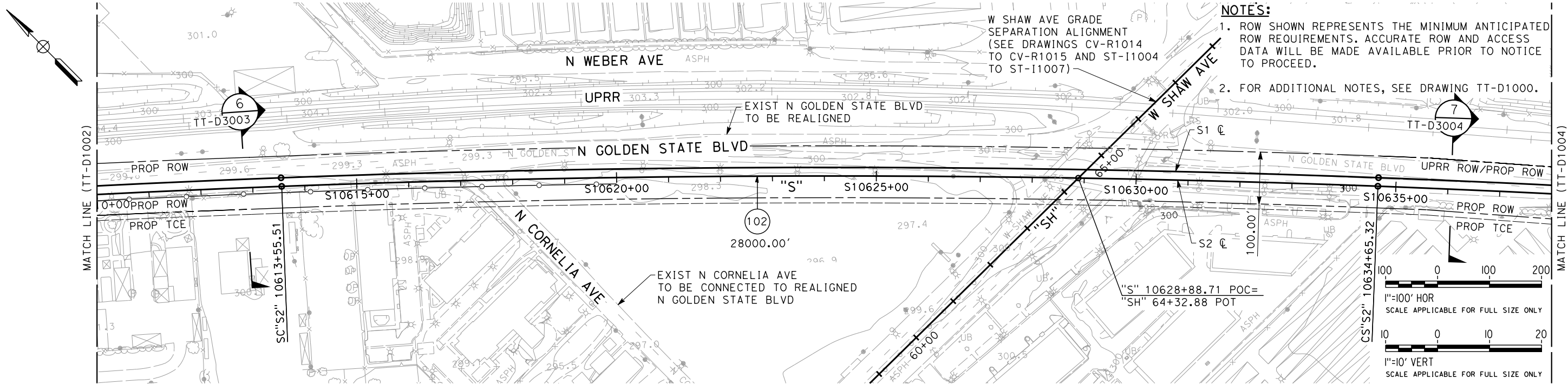
CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION**

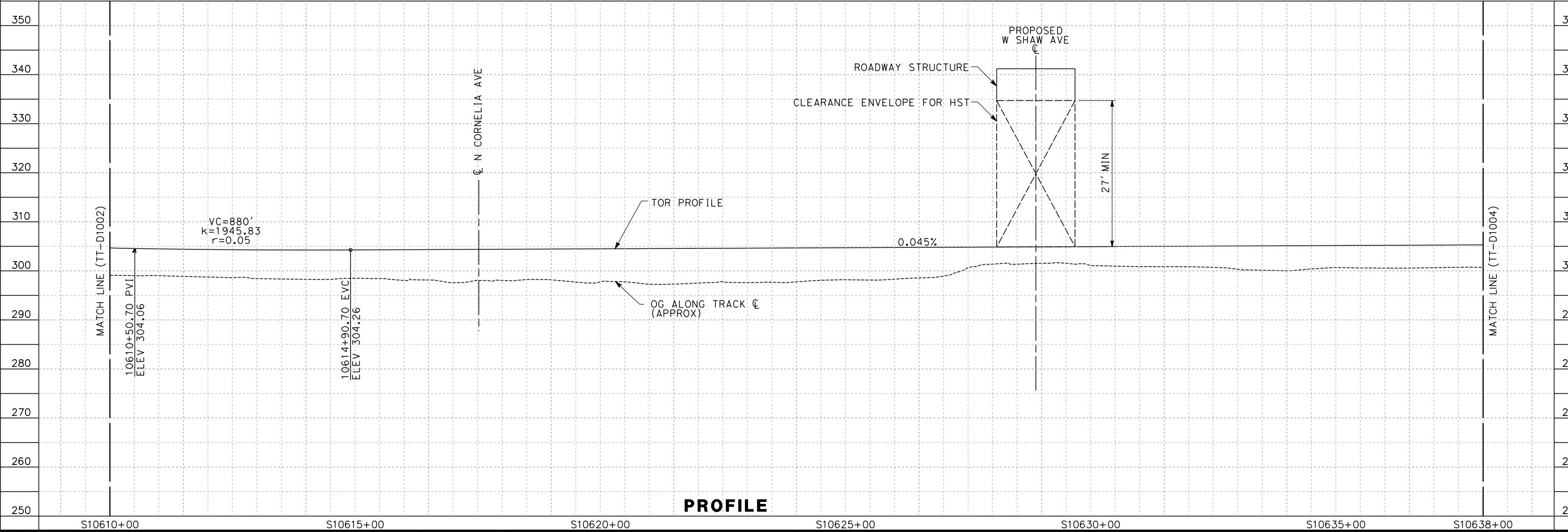
PACKAGE 1A  
TRACK GUIDEWAY  
PLAN AND PROFILE  
STA. 10582+00 TO 10610+00

CONTRACT NO.
DRAWING NO. TT-D1002
SCALE AS SHOWN
SHEET NO.

3/24/2012 9:51:44 AM shiedsa \\usscr1fp001\Cadd\CHSR\60022962\Task-03\_Merced-Fresno\CADD\Rail\Design\SHIELDSA\CP1A\_DEIR\_UPDATED\15-TT-D1003.dgn



PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
02/01/2012

**PROPOSED  
PRELIMINARY  
DESIGN**

**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION**

PACKAGE 1A  
TRACK GUIDEWAY  
PLAN AND PROFILE  
STA. 10610+00 TO 10638+00

CONTRACT NO.

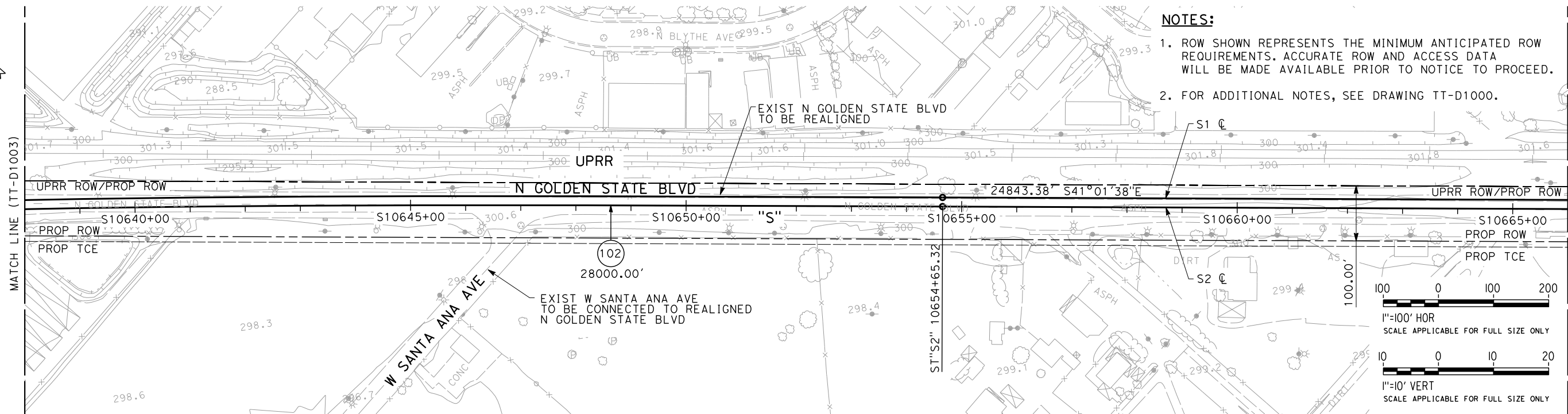
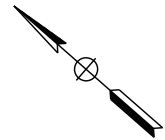
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TT-D1003

SCALE  
AS SHOWN

SHEET NO.

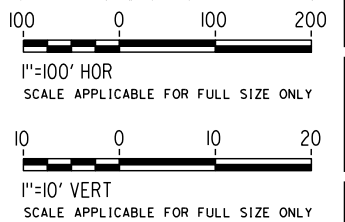
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shieldsa

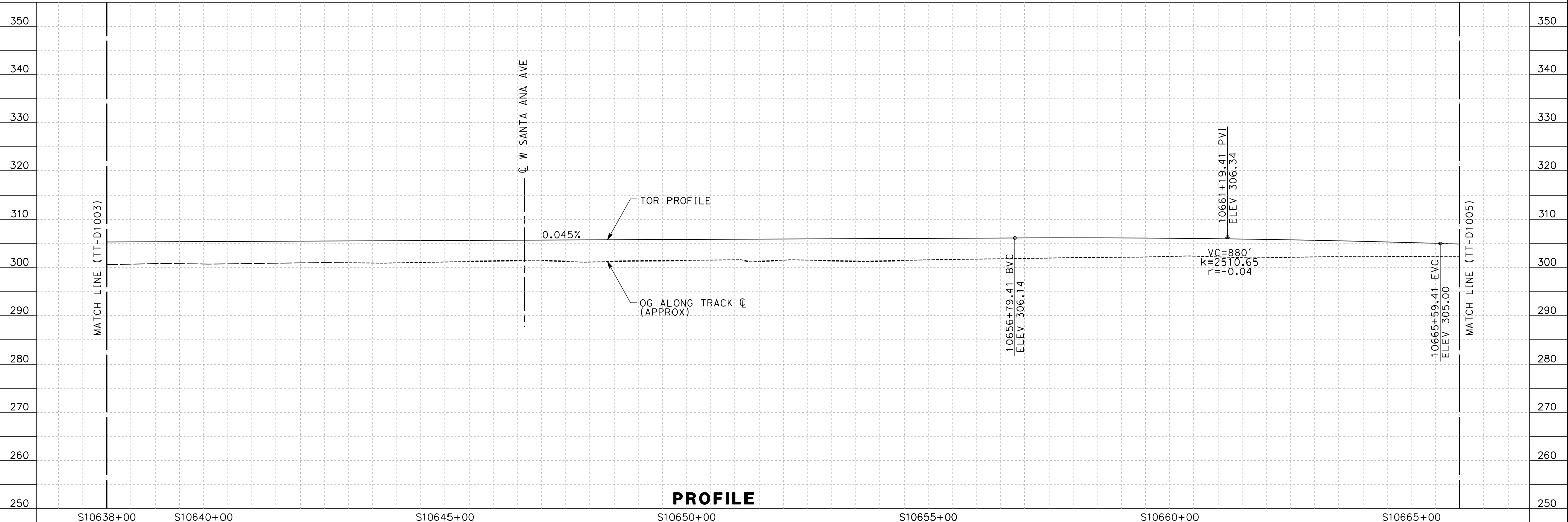


**NOTES:**

1. ROW SHOWN REPRESENTS THE MINIMUM ANTICIPATED ROW REQUIREMENTS. ACCURATE ROW AND ACCESS DATA WILL BE MADE AVAILABLE PRIOR TO NOTICE TO PROCEED.
2. FOR ADDITIONAL NOTES, SEE DRAWING TT-D1000.



**PLAN**



**PROFILE**

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY H. SULLIVAN
CHECKED BY A. BOONE
IN CHARGE A. BOONE
DATE 12/08/11

**PROPOSED  
PRELIMINARY  
DESIGN**

**NOT FOR  
CONSTRUCTION**



Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811



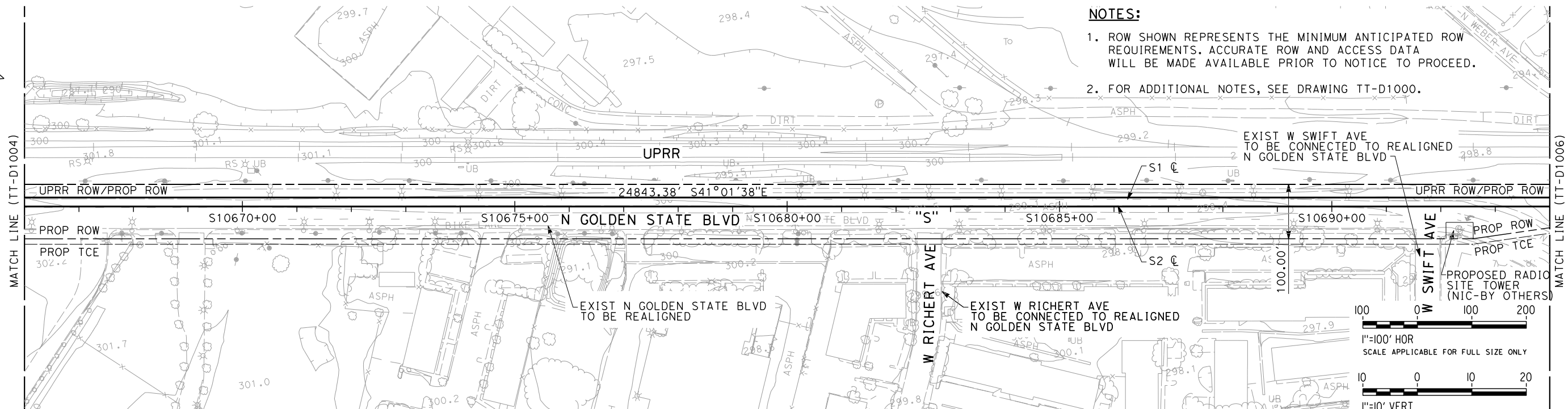
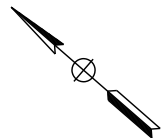


**CALIFORNIA**  
HIGH-SPEED RAIL AUTHORITY

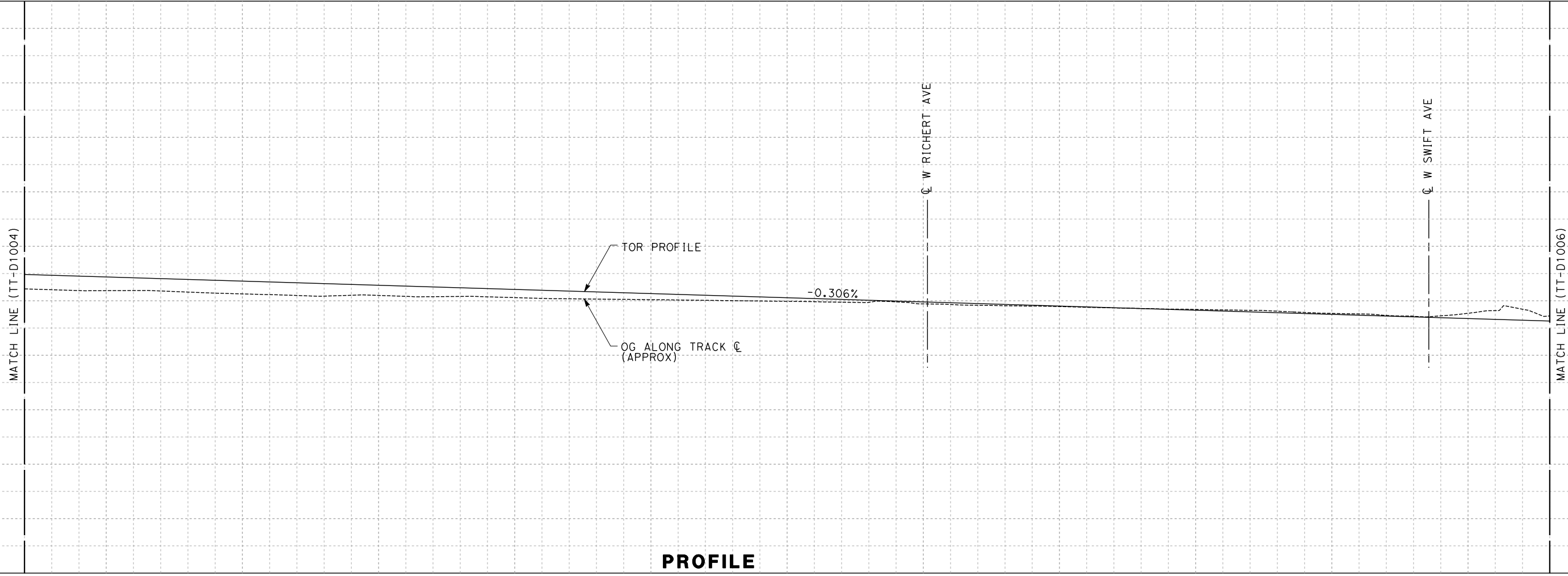
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**SIERRA SUBDIVISION**  
PACKAGE 1A  
TRACK GUIDEWAY  
PLAN AND PROFILE  
STA. 10638+00 TO 10666+00

CONTRACT NO.
DRAWING NO. TT-D1004
SCALE AS SHOWN
SHEET NO.

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PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY H. SULLIVAN
CHECKED BY A. BOONE
IN CHARGE A. BOONE
DATE 12/08/11

<b>PROPOSED PRELIMINARY DESIGN</b>
<b>NOT FOR CONSTRUCTION</b>

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

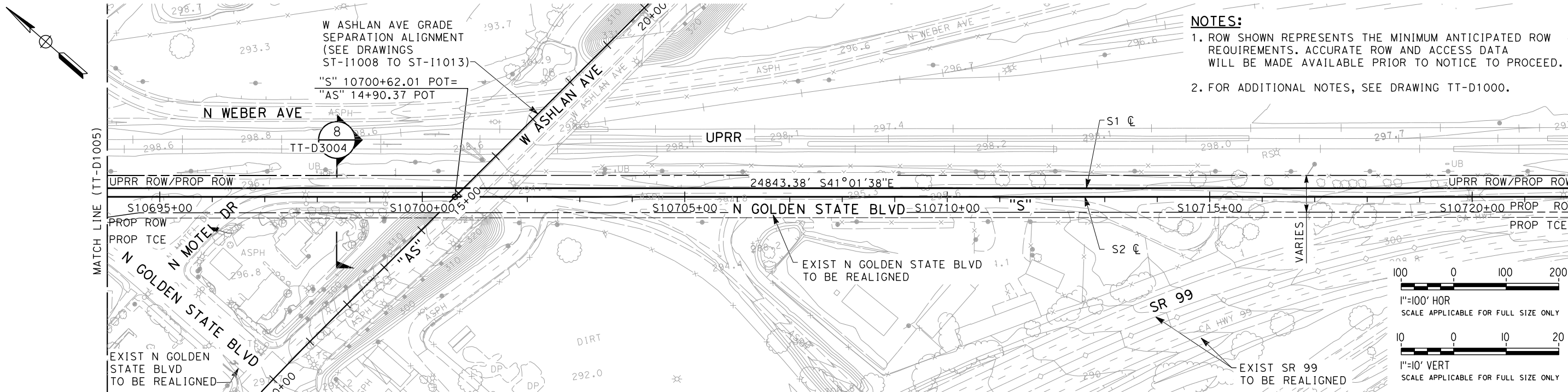
**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION**  
PACKAGE 1A  
TRACK GUIDEWAY  
PLAN AND PROFILE  
STA. 10666+00 TO 10694+00

CONTRACT NO.
DRAWING NO. TT-D1005
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SHEET NO.

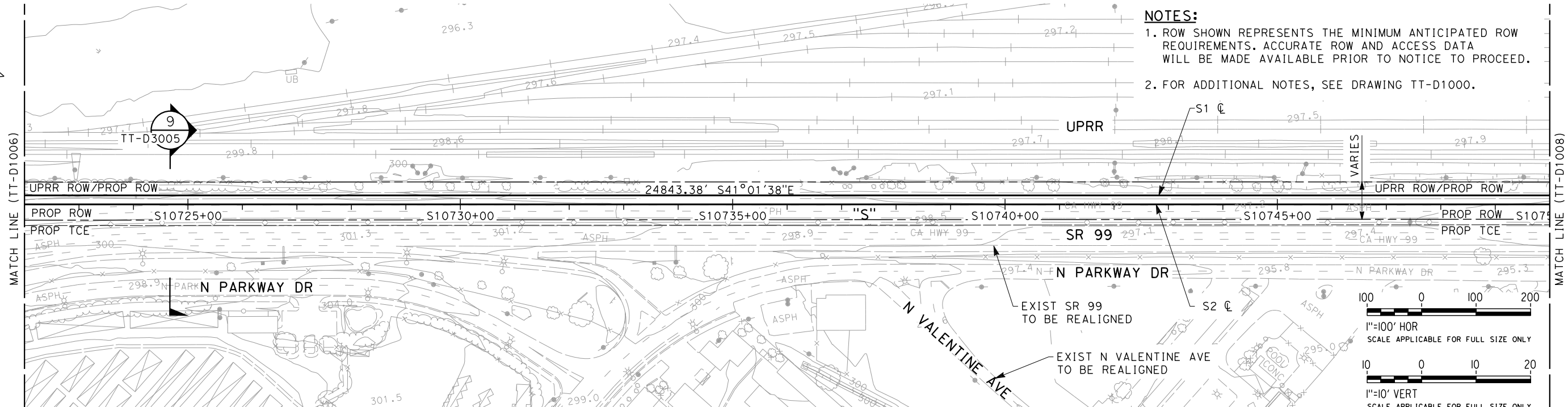
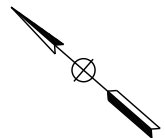
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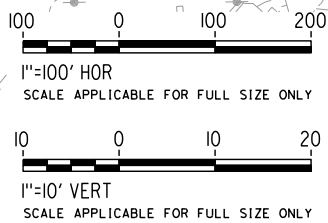


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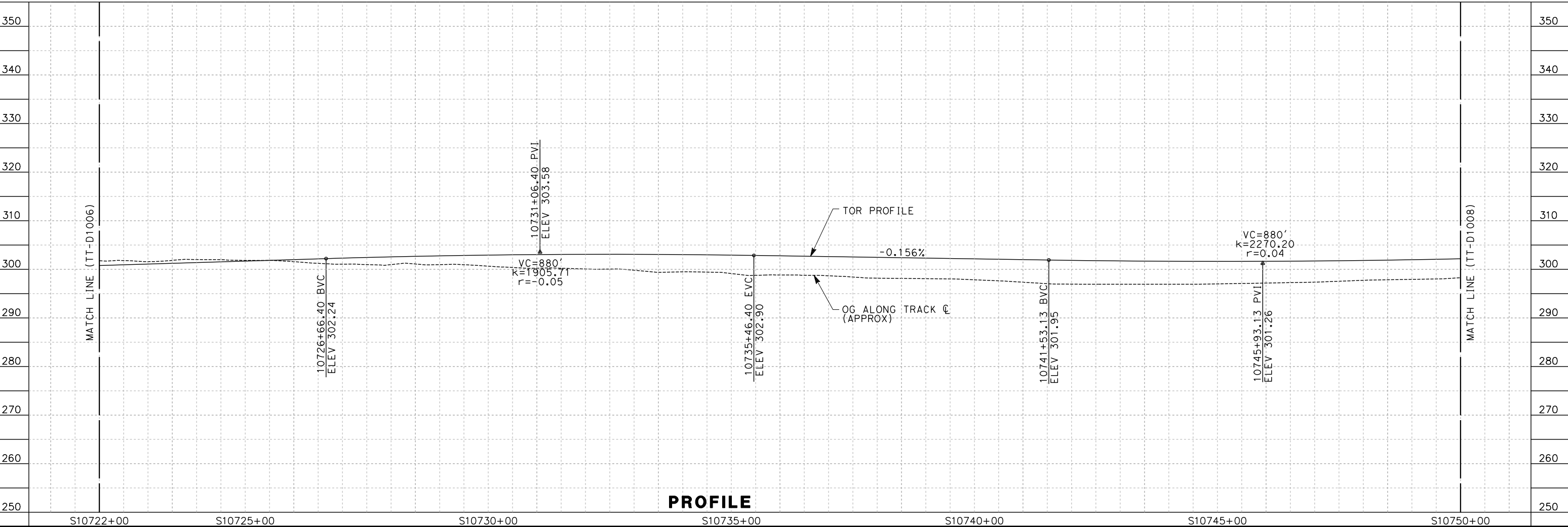
shieldsa



- NOTES:**
1. ROW SHOWN REPRESENTS THE MINIMUM ANTICIPATED ROW REQUIREMENTS. ACCURATE ROW AND ACCESS DATA WILL BE MADE AVAILABLE PRIOR TO NOTICE TO PROCEED.
  2. FOR ADDITIONAL NOTES, SEE DRAWING TT-D1000.



PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
12/08/11

**PROPOSED  
PRELIMINARY  
DESIGN**

**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION**

PACKAGE 1A  
TRACK GUIDEWAY  
PLAN AND PROFILE  
STA. 10722+00 TO 10750+00

CONTRACT NO.

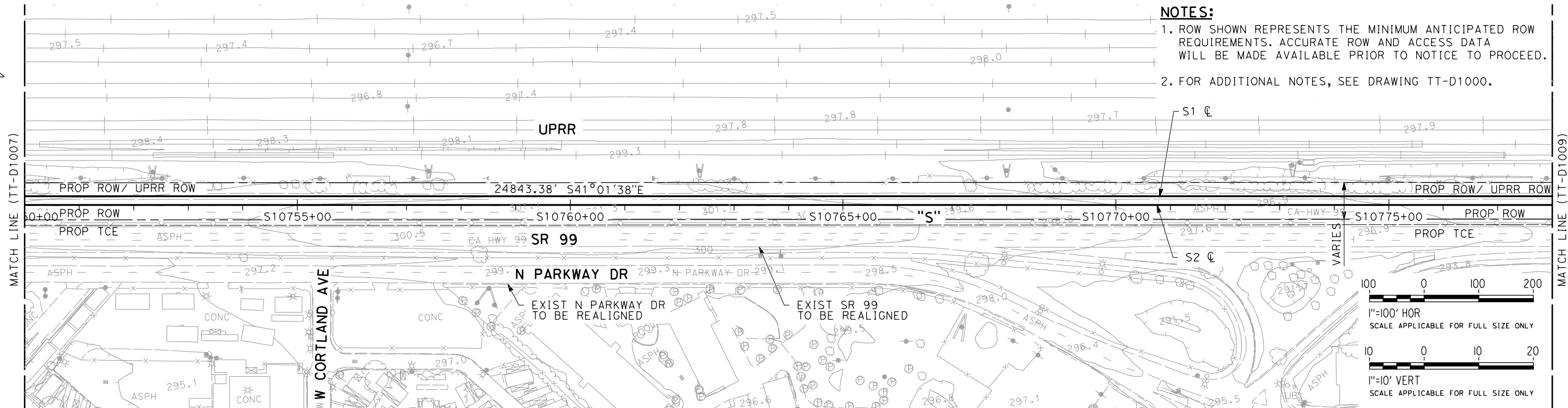
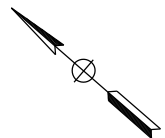
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TT-D1007

SCALE  
AS SHOWN

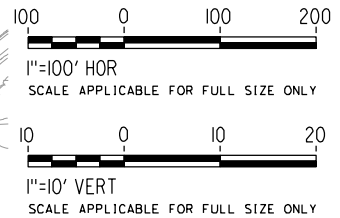
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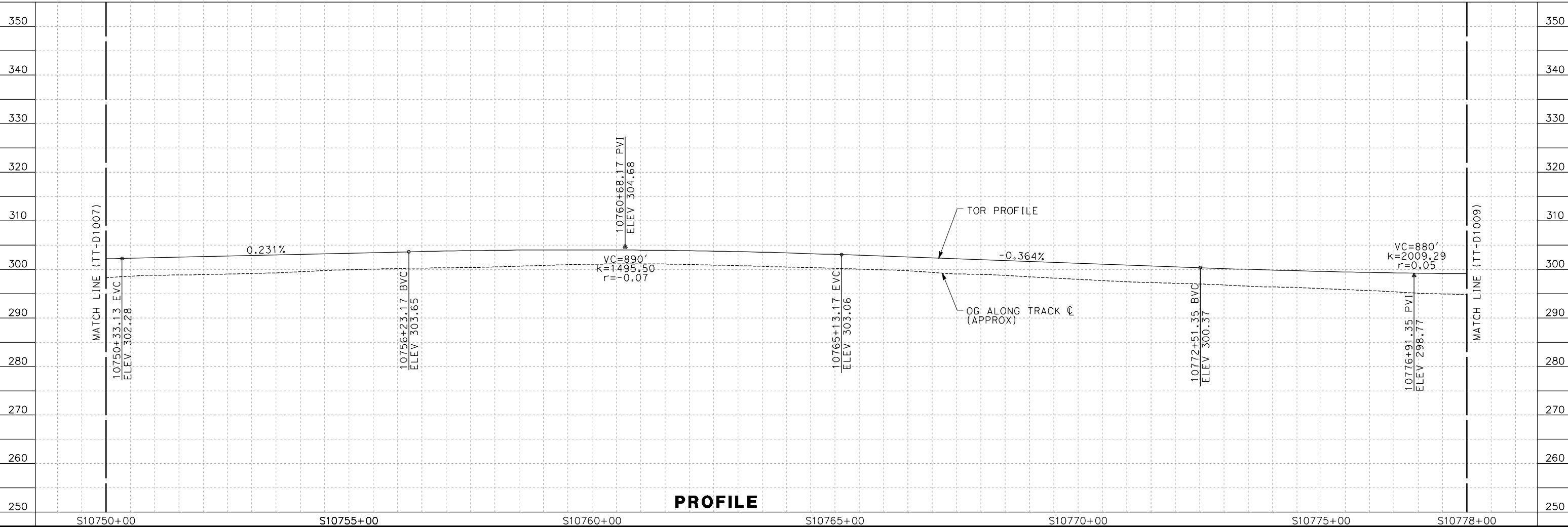
sullivan



- NOTES:**
1. ROW SHOWN REPRESENTS THE MINIMUM ANTICIPATED ROW REQUIREMENTS. ACCURATE ROW AND ACCESS DATA WILL BE MADE AVAILABLE PRIOR TO NOTICE TO PROCEED.
  2. FOR ADDITIONAL NOTES, SEE DRAWING TT-D1000.



PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
01/09/2012

**PROPOSED  
PRELIMINARY  
DESIGN**

**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

**CH2MHILL**



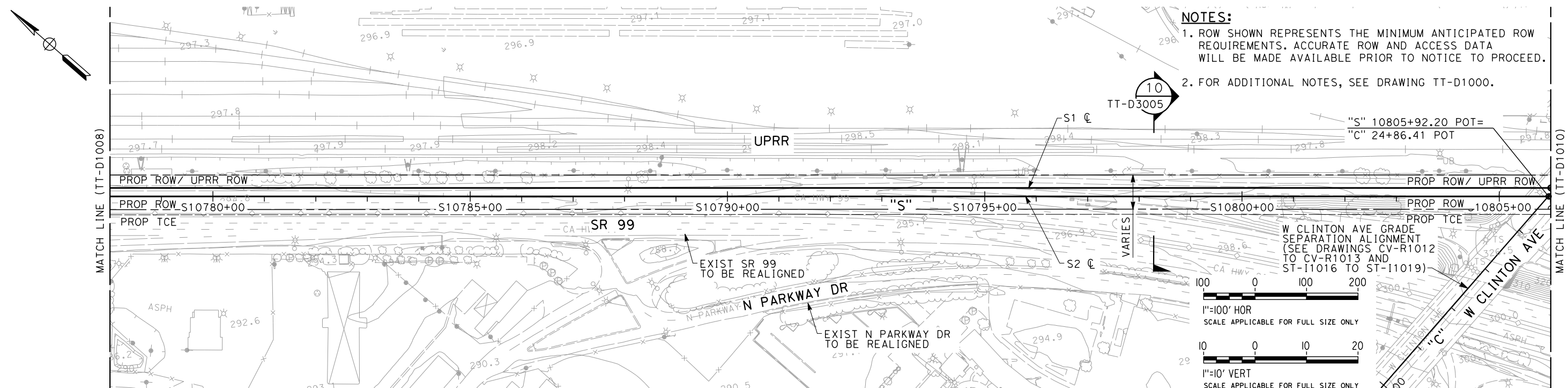
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SIERRA SUBDIVISION  
PACKAGE 1A  
TRACK GUIDEWAY  
PLAN AND PROFILE  
STA. 10750+00 TO 10778+00**

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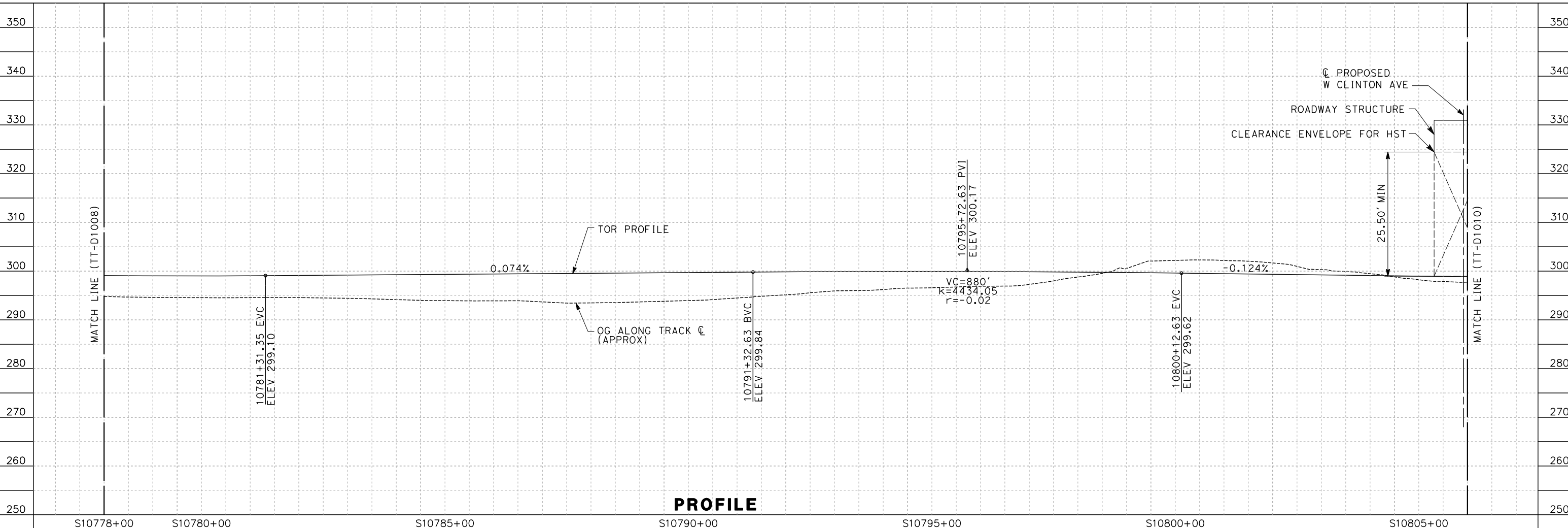
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SCALE  
AS SHOWN

SHEET NO.



## PLAN



## PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY H. SULLIVAN
CHECKED BY A. BOONE
IN CHARGE A. BOONE
DATE 12/08/11

**PROPOSED  
PRELIMINARY  
DESIGN**

**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

**CH2MHILL**

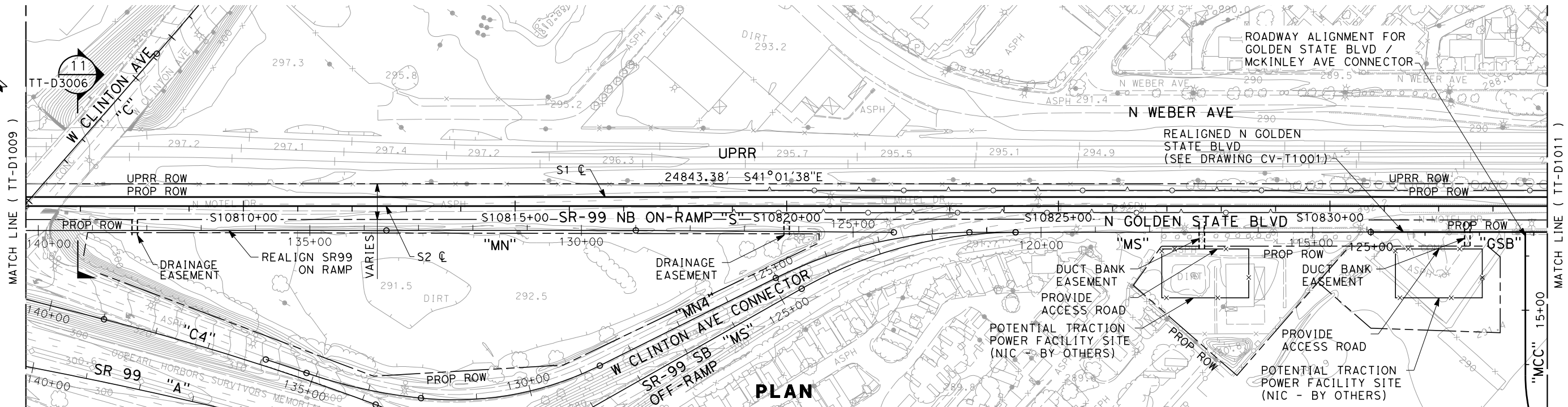
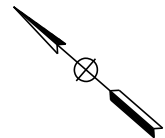


**CALIFORNIA**  
HIGH-SPEED RAIL AUTHORITY

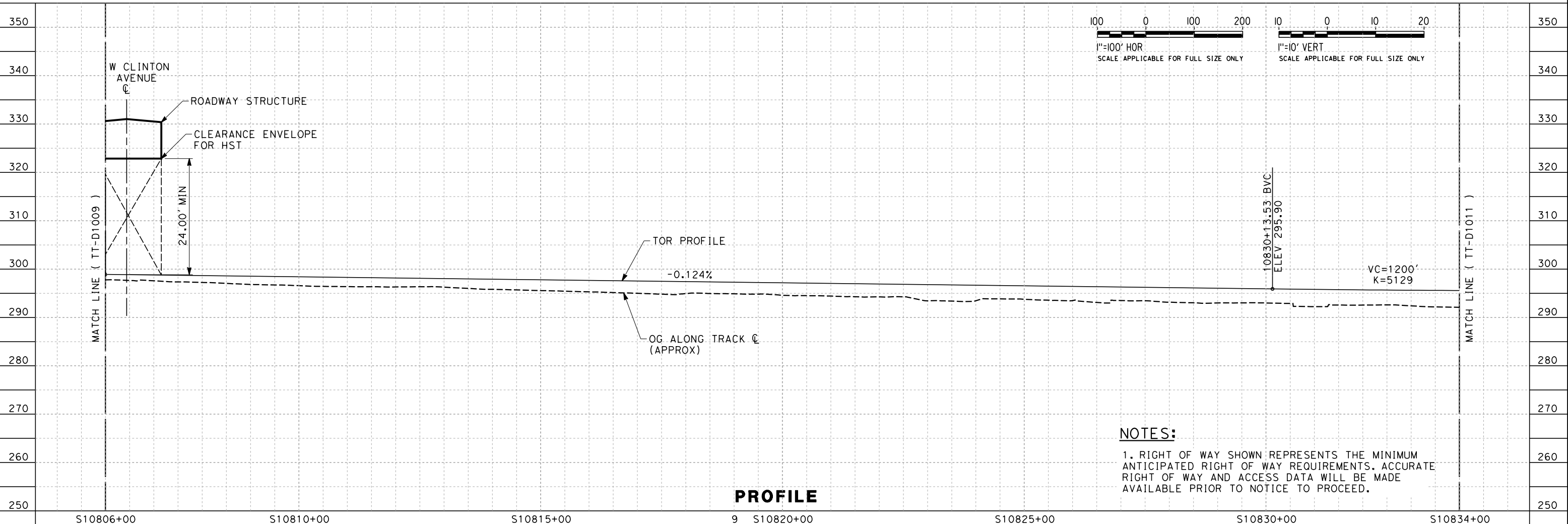
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**SIERRA SUBDIVISION**  
PACKAGE 1A  
TRACK GUIDEWAY  
PLAN AND PROFILE  
STA. 10778+00 TO 10806+00

CONTRACT NO.
DRAWING NO. TT-D1009
SCALE AS SHOWN
SHEET NO.

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PLAN



PROFILE

- NOTES:
1. RIGHT OF WAY SHOWN REPRESENTS THE MINIMUM ANTICIPATED RIGHT OF WAY REQUIREMENTS. ACCURATE RIGHT OF WAY AND ACCESS DATA WILL BE MADE AVAILABLE PRIOR TO NOTICE TO PROCEED.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 02/21/12

PROPOSED  
PRELIMINARY  
DESIGN

NOT FOR  
CONSTRUCTION

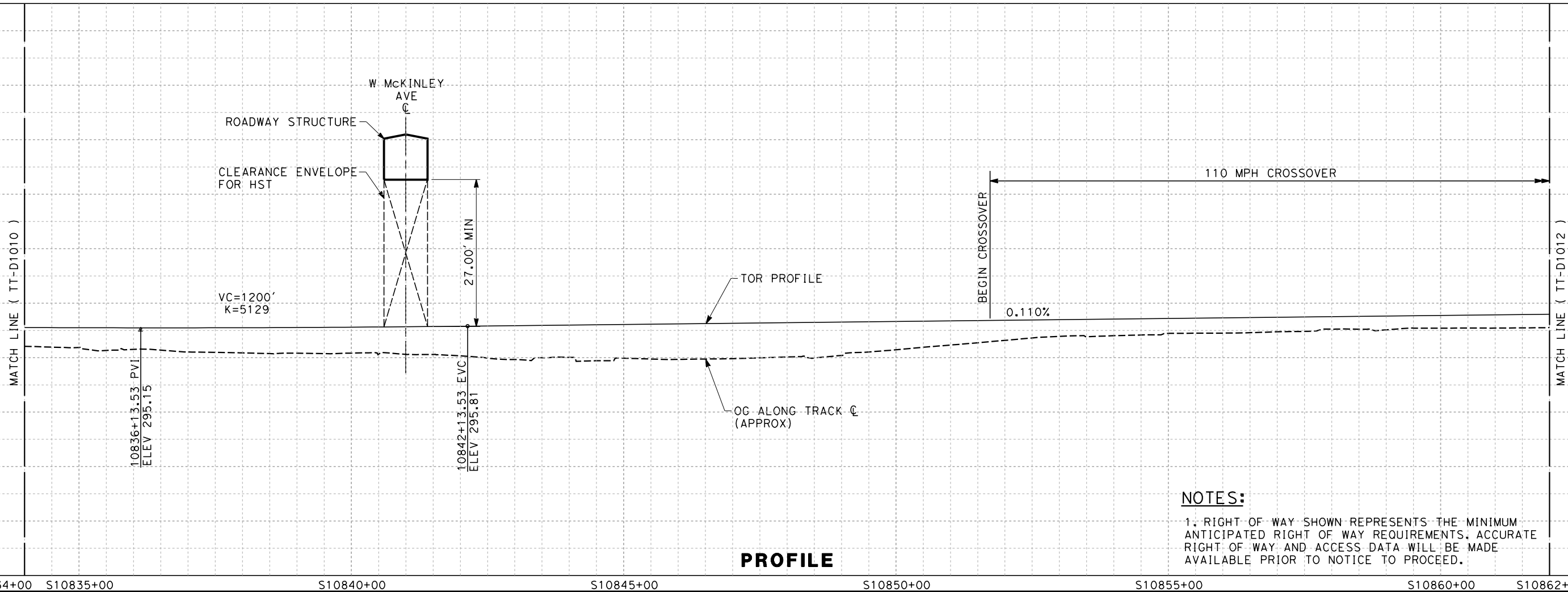
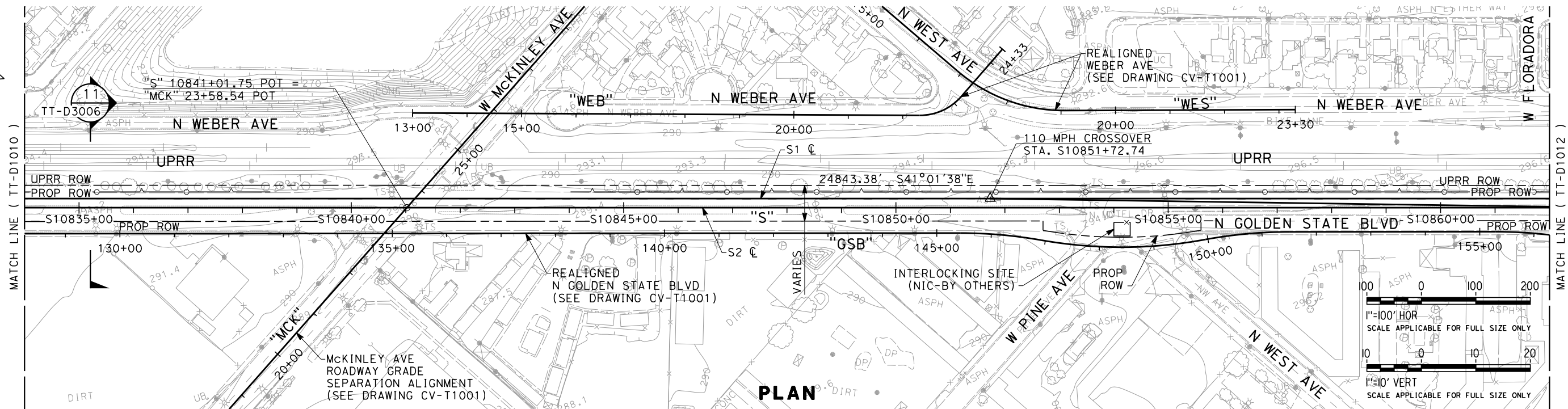
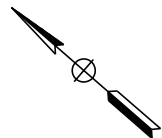


CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION  
PACKAGE 1A  
TRACK GUIDEWAY  
PLAN AND PROFILE  
STA. 10806+00 TO STA. 10834+00

CONTRACT NO.
DRAWING NO. TT-D1010
SCALE AS SHOWN
SHEET NO.



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NOTES:

1. RIGHT OF WAY SHOWN REPRESENTS THE MINIMUM ANTICIPATED RIGHT OF WAY REQUIREMENTS. ACCURATE RIGHT OF WAY AND ACCESS DATA WILL BE MADE AVAILABLE PRIOR TO NOTICE TO PROCEED.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 02/21/12

PROPOSED  
PRELIMINARY  
DESIGN

NOT FOR  
CONSTRUCTION

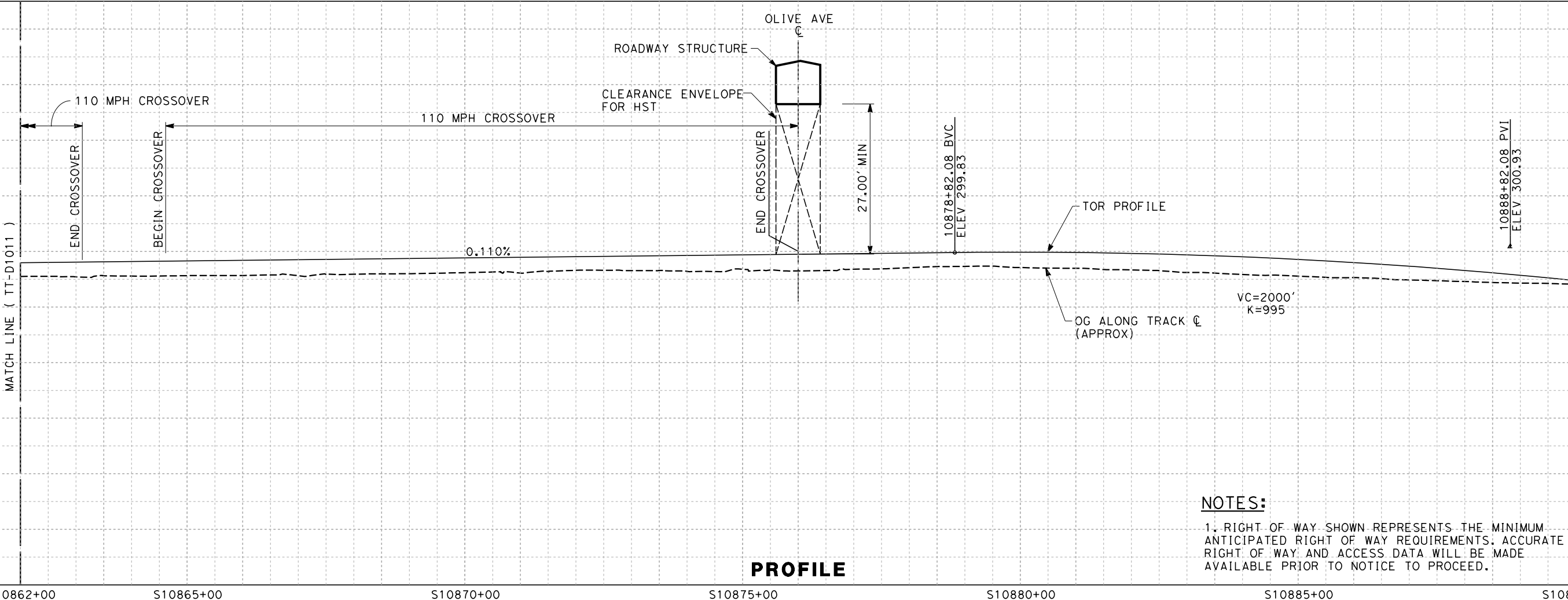
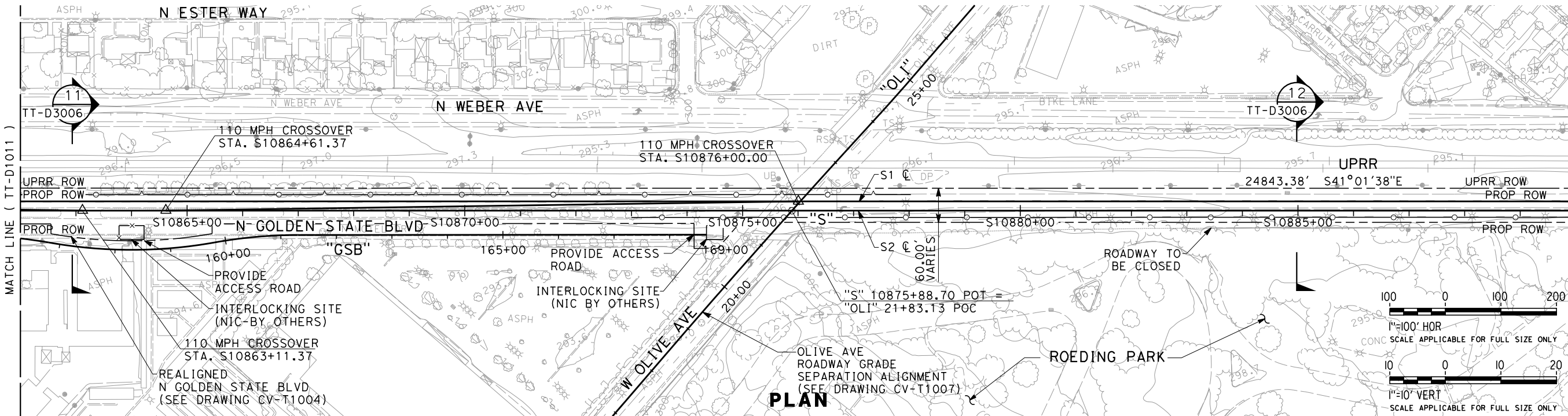
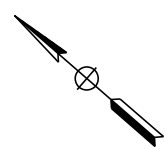


CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**SIERRA SUBDIVISION**  
PACKAGE 1A  
TRACK GUIDEWAY  
PLAN AND PROFILE  
STA. 10834+00 TO STA. 10862+00

CONTRACT NO.
DRAWING NO. TT-D1011
SCALE AS SHOWN
SHEET NO.

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**NOTES:**  
1. RIGHT OF WAY SHOWN REPRESENTS THE MINIMUM ANTICIPATED RIGHT OF WAY REQUIREMENTS. ACCURATE RIGHT OF WAY AND ACCESS DATA WILL BE MADE AVAILABLE PRIOR TO NOTICE TO PROCEED.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
K. SEYMOUR  
DRAWN BY  
P. TONKIN  
CHECKED BY  
D. HUNT  
IN CHARGE  
R. COFFIN  
DATE  
02/21/12

**PROPOSED  
PRELIMINARY  
DESIGN**  
  
**NOT FOR  
CONSTRUCTION**

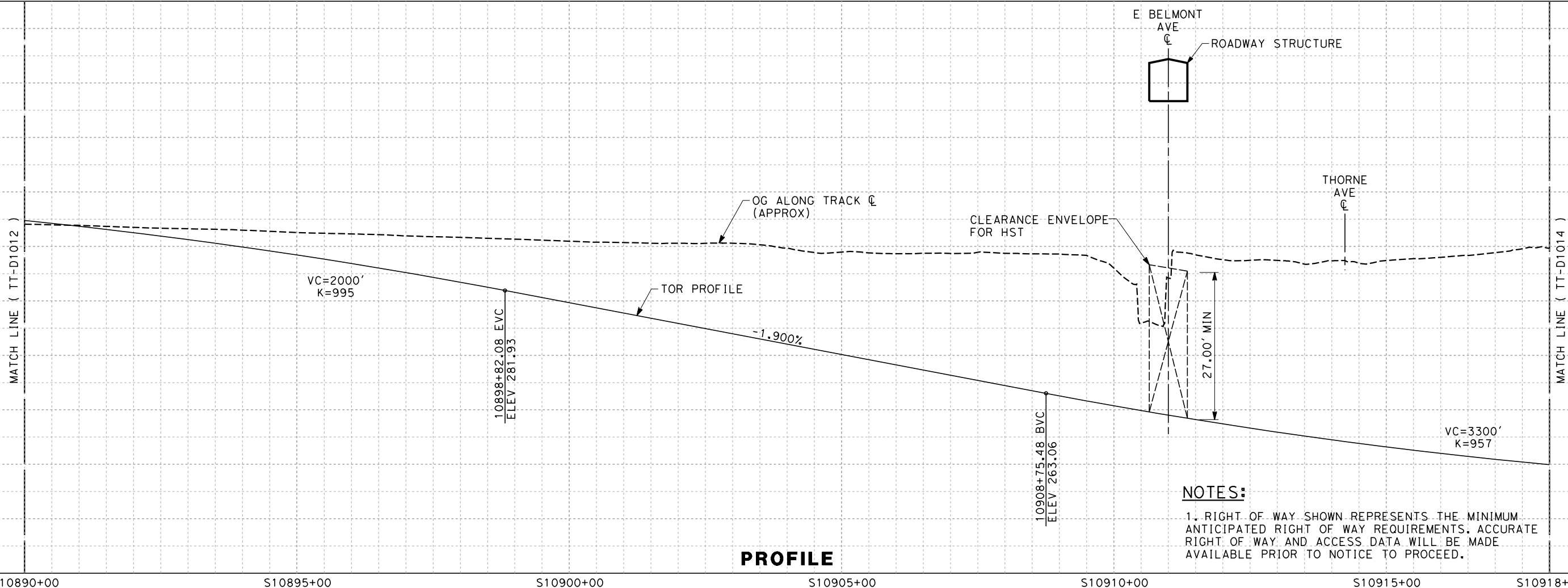
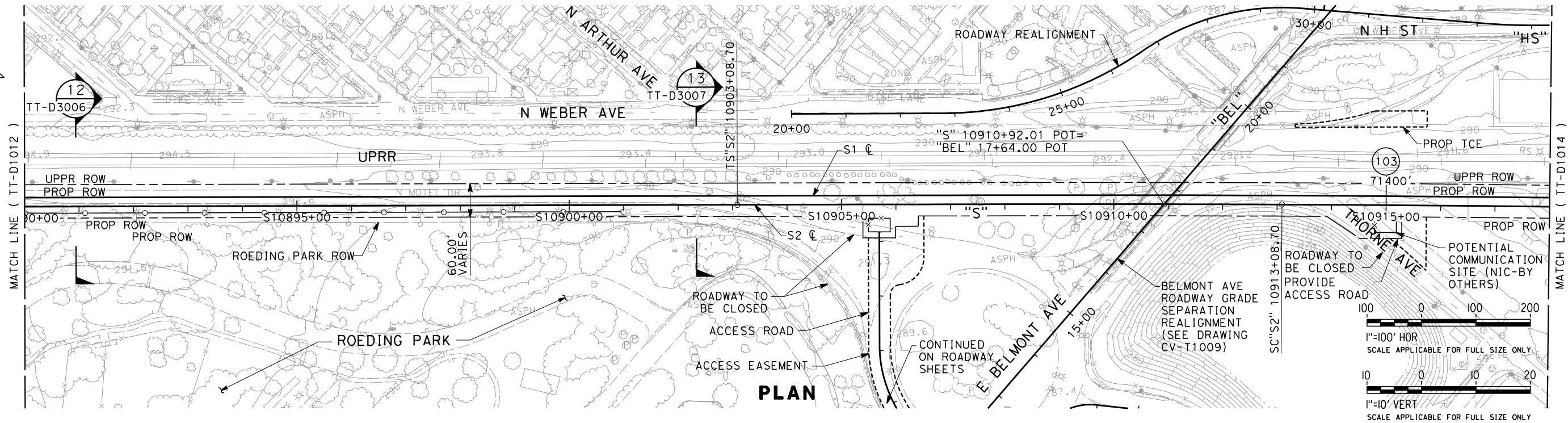
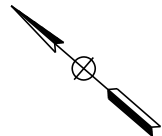


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
SIERRA SUBDIVISION**  
PACKAGE 1A  
TRACK GUIDEWAY  
PLAN AND PROFILE  
STA. 10862+00 TO STA. 10890+00

CONTRACT NO.  
DRAWING NO.  
TT-D1012  
SCALE  
AS SHOWN  
SHEET NO.



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**NOTES:**  
1. RIGHT OF WAY SHOWN REPRESENTS THE MINIMUM ANTICIPATED RIGHT OF WAY REQUIREMENTS. ACCURATE RIGHT OF WAY AND ACCESS DATA WILL BE MADE AVAILABLE PRIOR TO NOTICE TO PROCEED.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 02/21/12

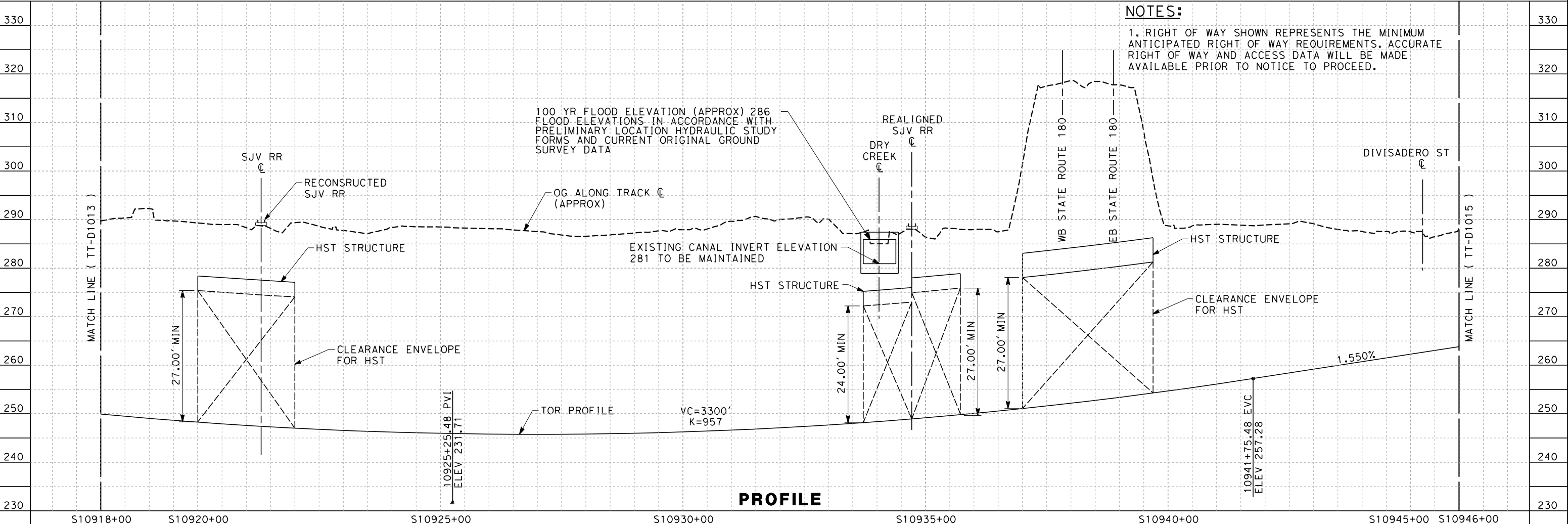
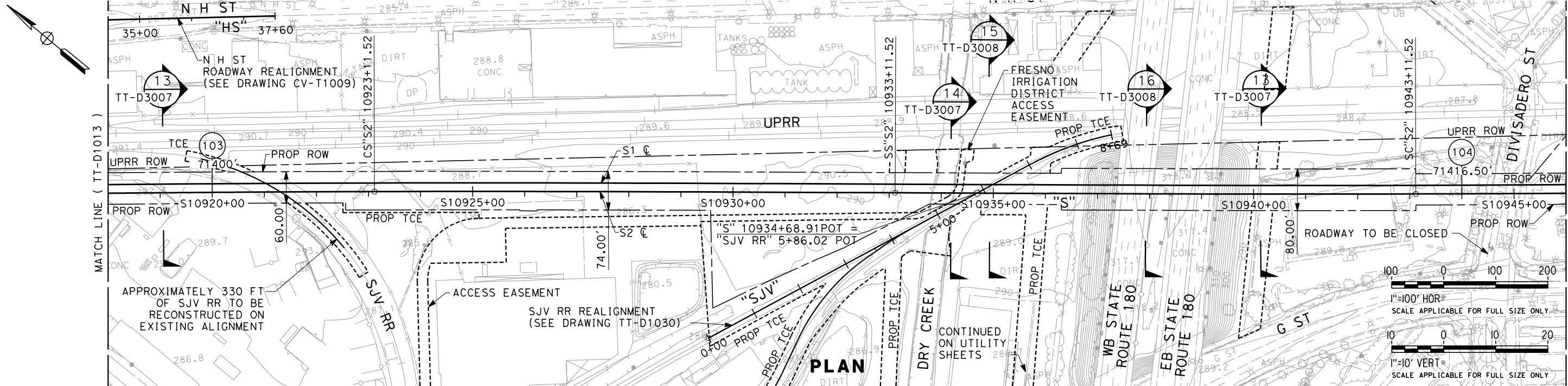
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<b>NOT FOR CONSTRUCTION</b>



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CONTRACT NO.
DRAWING NO. TT-D1013
SCALE AS SHOWN
SHEET NO.



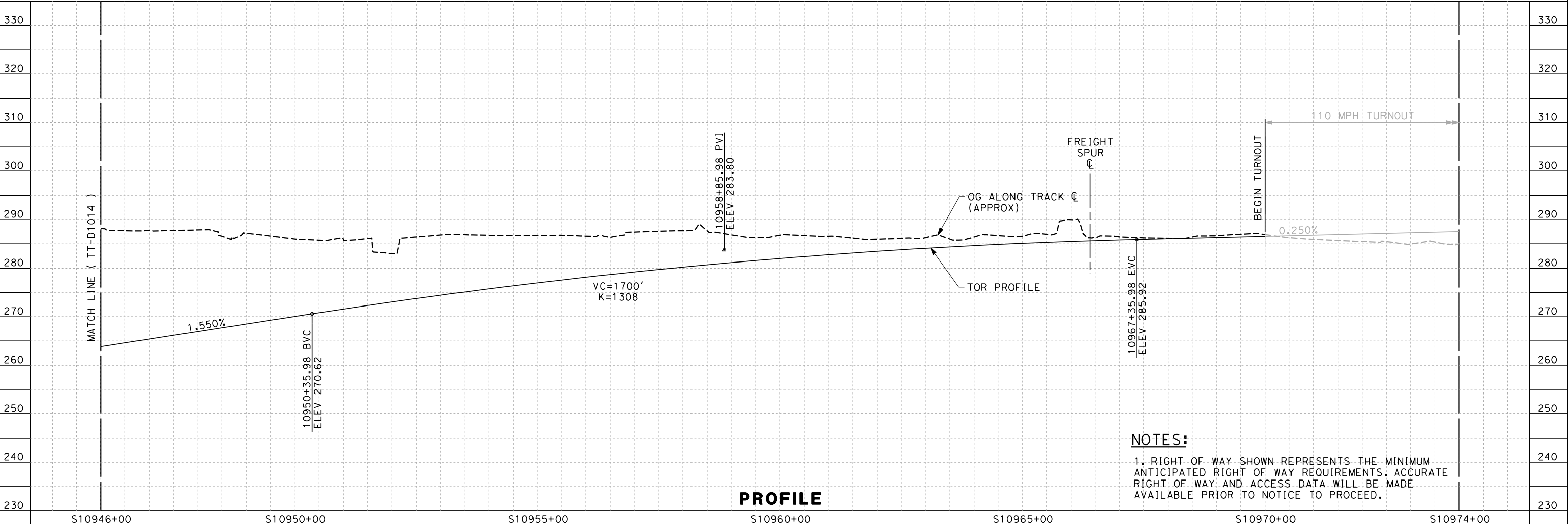
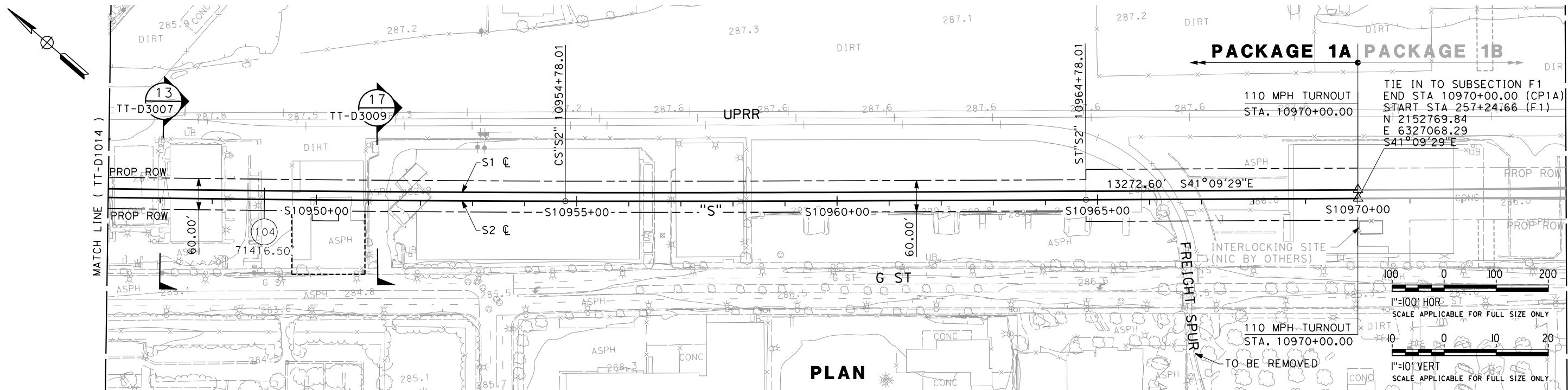
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**NOTES:**  
1. RIGHT OF WAY SHOWN REPRESENTS THE MINIMUM ANTICIPATED RIGHT OF WAY REQUIREMENTS. ACCURATE RIGHT OF WAY AND ACCESS DATA WILL BE MADE AVAILABLE PRIOR TO NOTICE TO PROCEED.

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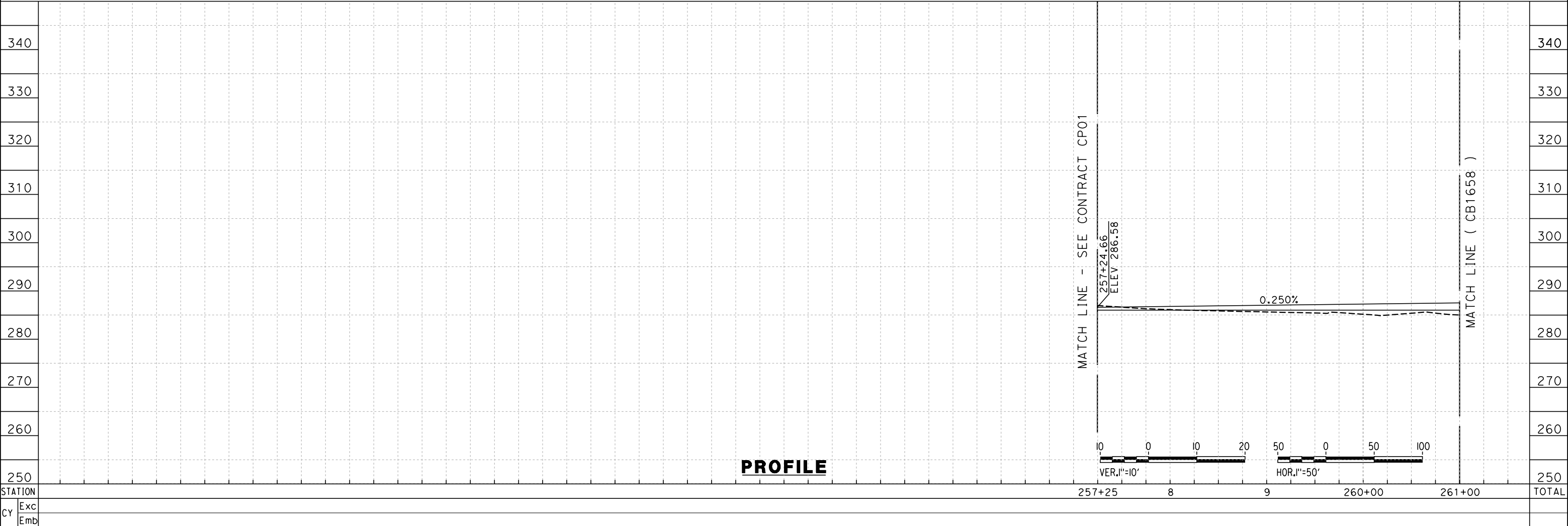




**NOTES:**  
1. RIGHT OF WAY SHOWN REPRESENTS THE MINIMUM ANTICIPATED RIGHT OF WAY REQUIREMENTS. ACCURATE RIGHT OF WAY AND ACCESS DATA WILL BE MADE AVAILABLE PRIOR TO NOTICE TO PROCEED.

<div>DESIGNED BY K. SEYMOUR DRAWN BY P. TONKIN CHECKED BY D. HUNT IN CHARGE R. COFFIN DATE 02/21/12</div>					<div>PROPOSED PRELIMINARY DESIGN  NOT FOR CONSTRUCTION</div>		<div>URS   HMM   ARUP CALIFORNIA HIGH-SPEED TRAIN</div>		<div>CALIFORNIA HIGH-SPEED RAIL AUTHORITY</div>		<div>CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1A TRACK GUIDEWAY PLAN AND PROFILE STA. 10946+00 TO STA. 10974+00</div>		<div>CONTRACT NO.  DRAWING NO. TT-D1015 SCALE AS SHOWN SHEET NO.</div>	
REV	DATE	BY	CHK	APP	DESCRIPTION									



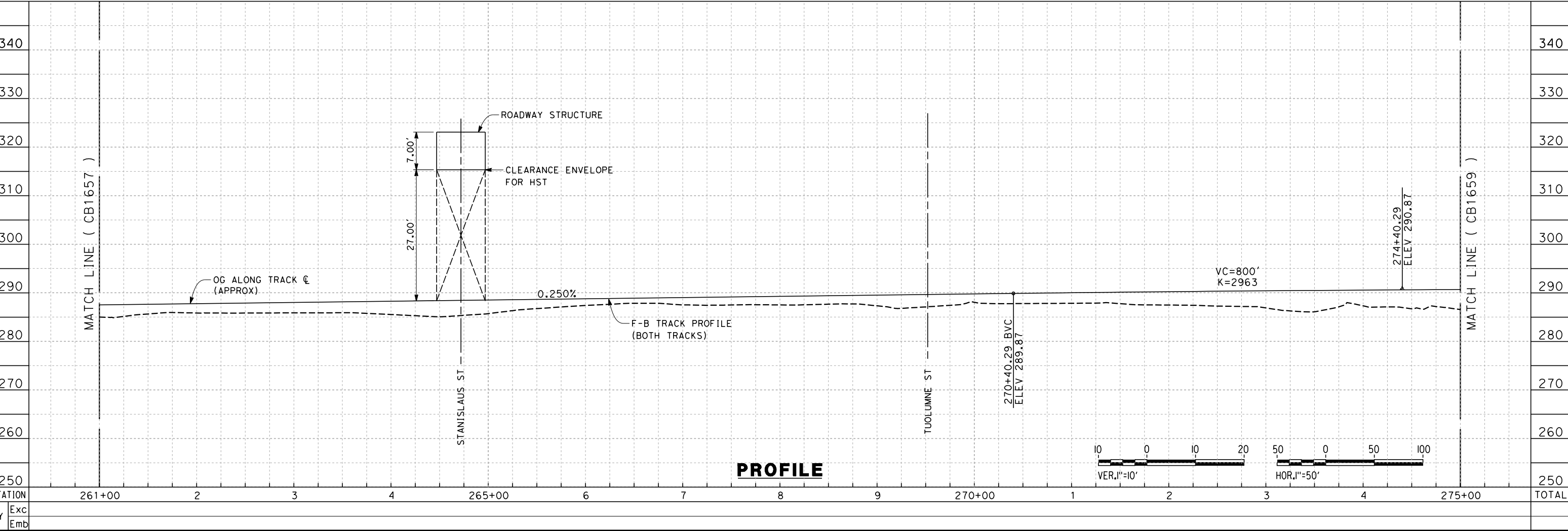
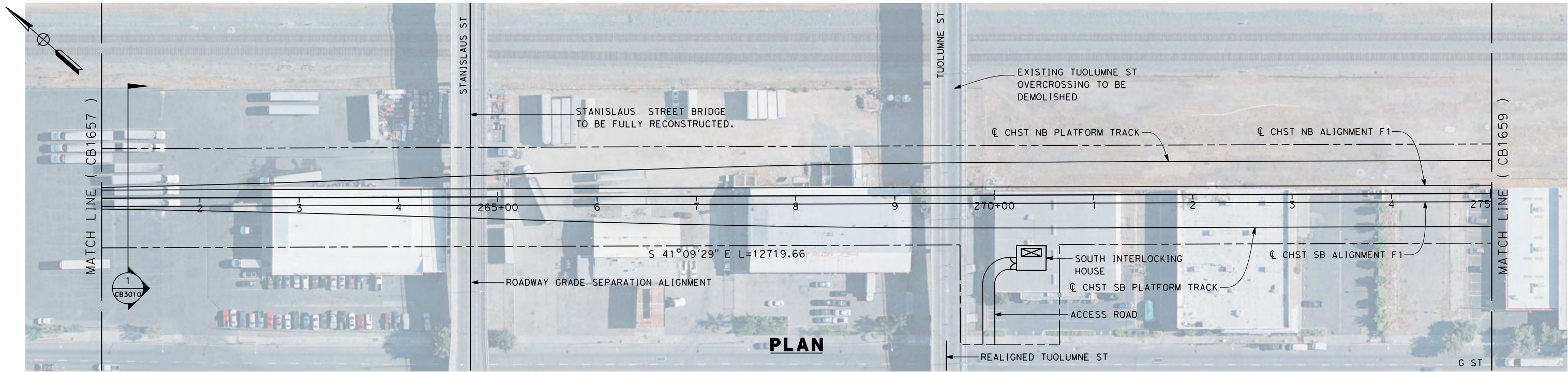
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						DESIGNED BY K. SEYMOUR	<b>RECORD SET 15% DESIGN SUBMISSION</b>  <b>NOT FOR CONSTRUCTION</b>	 	<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD</b> FRESNO SUBSECTION ALIGNMENT F1 STA. 257+24.56 TO 261+00 PLAN AND PROFILE	CONTRACT NO. HSR 06-0003	
						DRAWN BY P. TONKIN				DRAWING NO. CB1657	
						CHECKED BY D. HUNT				SCALE AS SHOWN	
						IN CHARGE R. COFFIN				SHEET NO. 2 OF 23	
						DATE 02/15/12					
REV	DATE	BY	CHK	APP	DESCRIPTION						



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keith.seymour



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 04/03/12

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



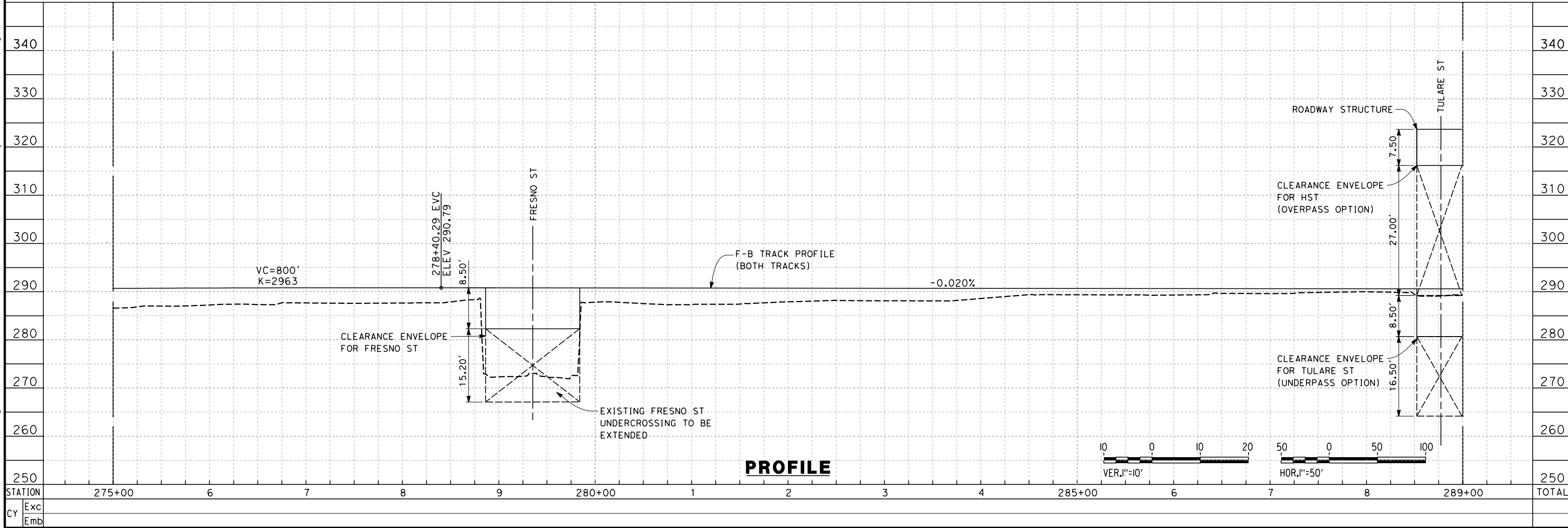
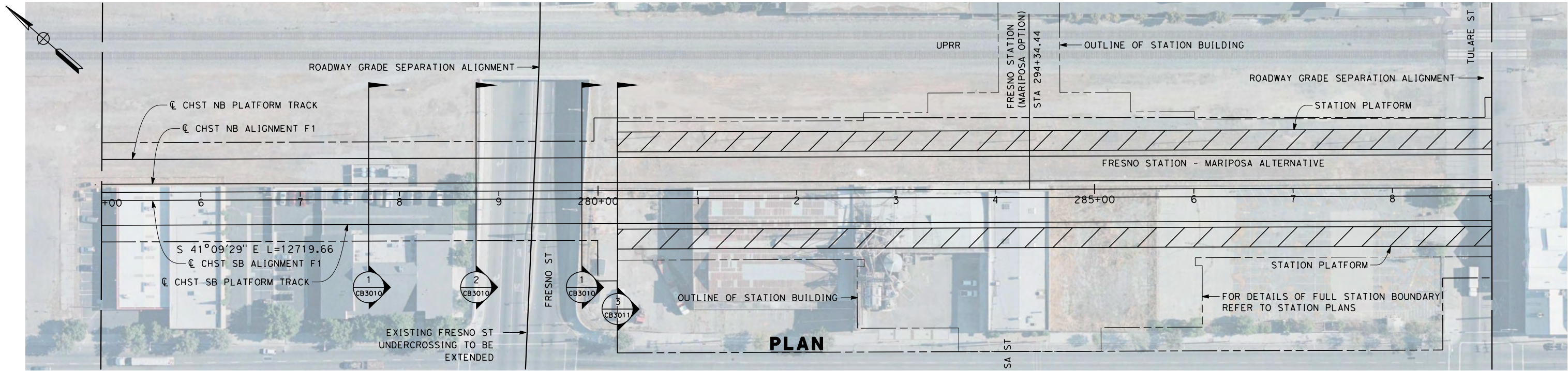
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**

FRESNO SUBSECTION  
ALIGNMENT F1  
STA. 261+00 TO 275+00  
PLAN AND PROFILE

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1658
SCALE AS SHOWN
SHEET NO.



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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
K. SEYMOUR  
DRAWN BY  
P. TONKIN  
CHECKED BY  
D. HUNT  
IN CHARGE  
R. COFFIN  
DATE  
02/15/12

RECORD SET 15%  
DESIGN SUBMISSION  
  
NOT FOR  
CONSTRUCTION

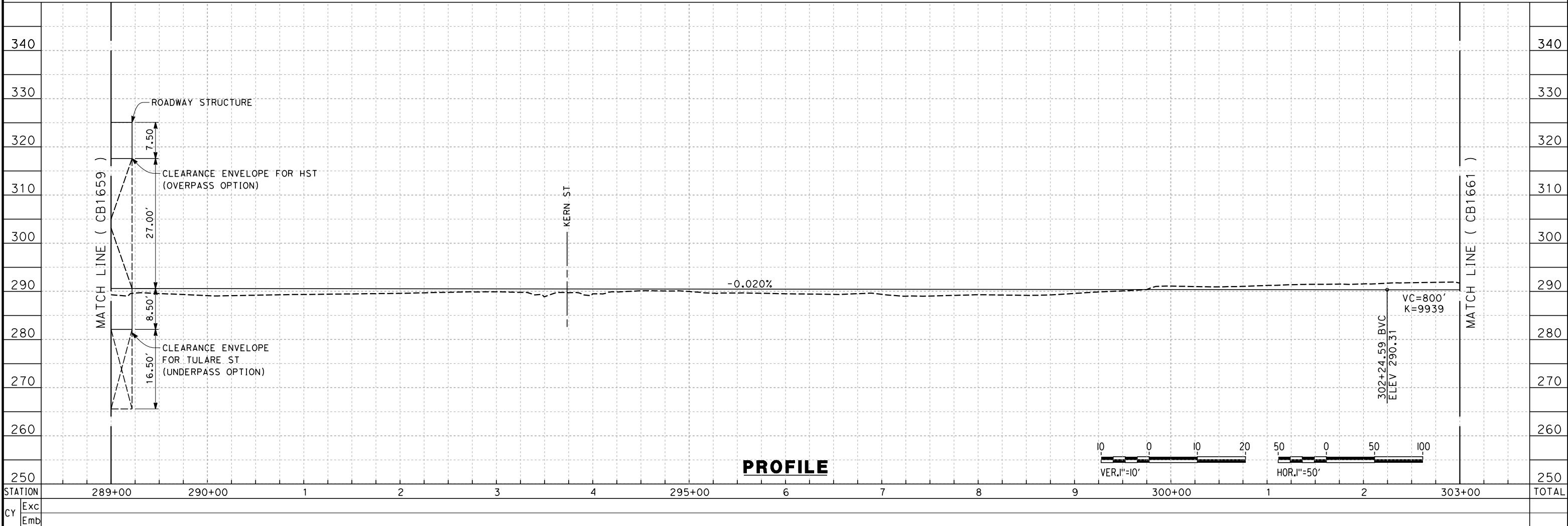
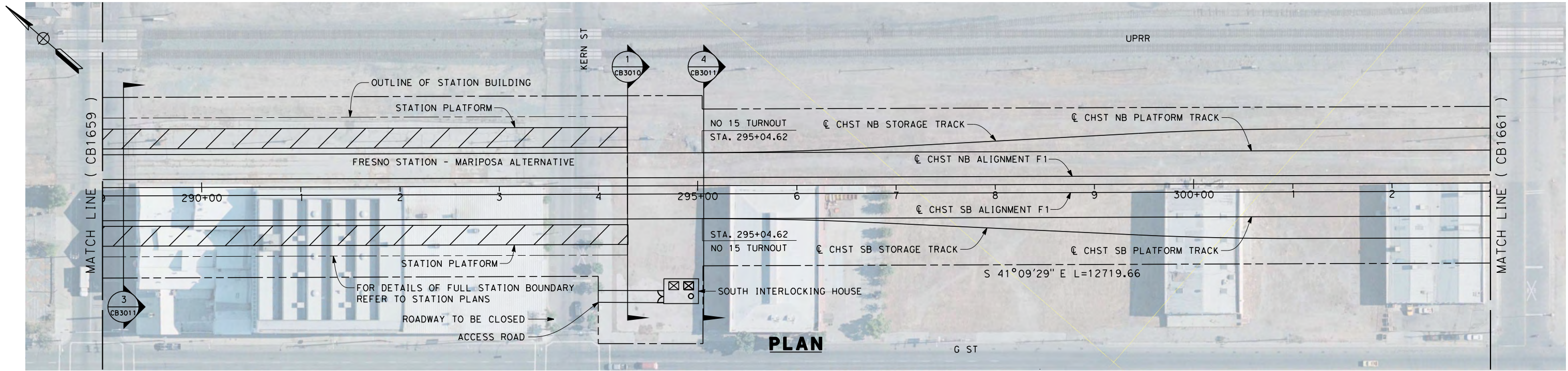




CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD  
FRESNO SUBSECTION  
ALIGNMENT F1  
STA. 275+00 TO 289+00  
PLAN AND PROFILE

CONTRACT NO.  
HSR 06-0003  
DRAWING NO.  
CB1659  
SCALE  
AS SHOWN  
SHEET NO.  
4 OF 23



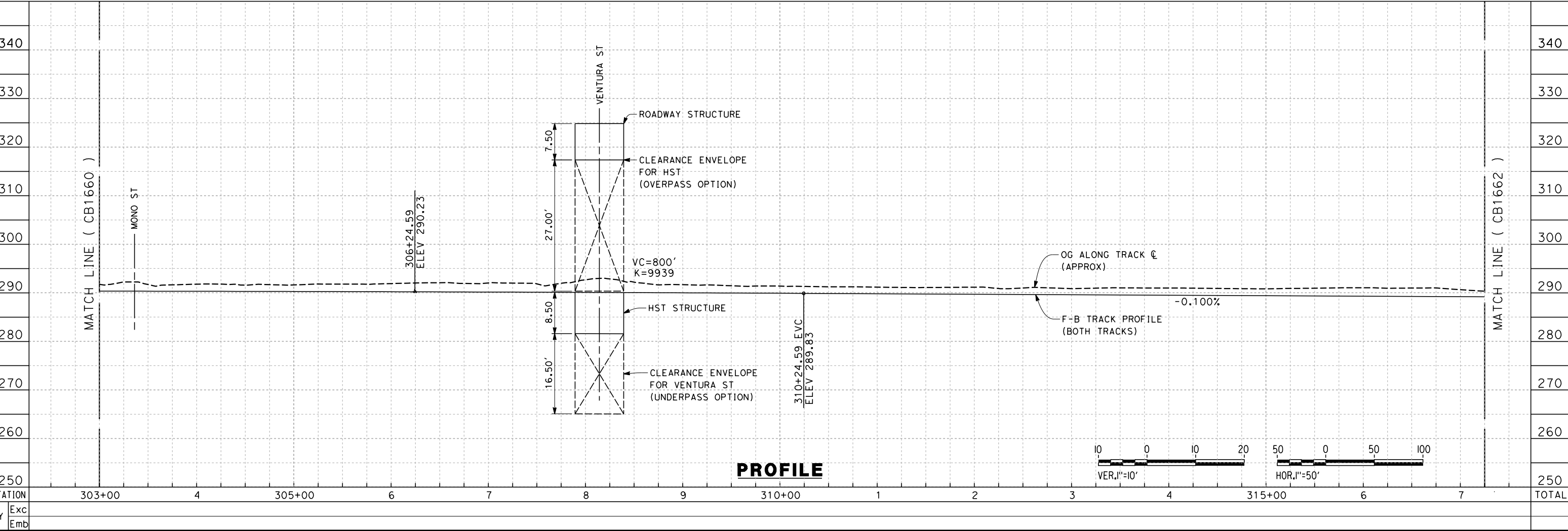
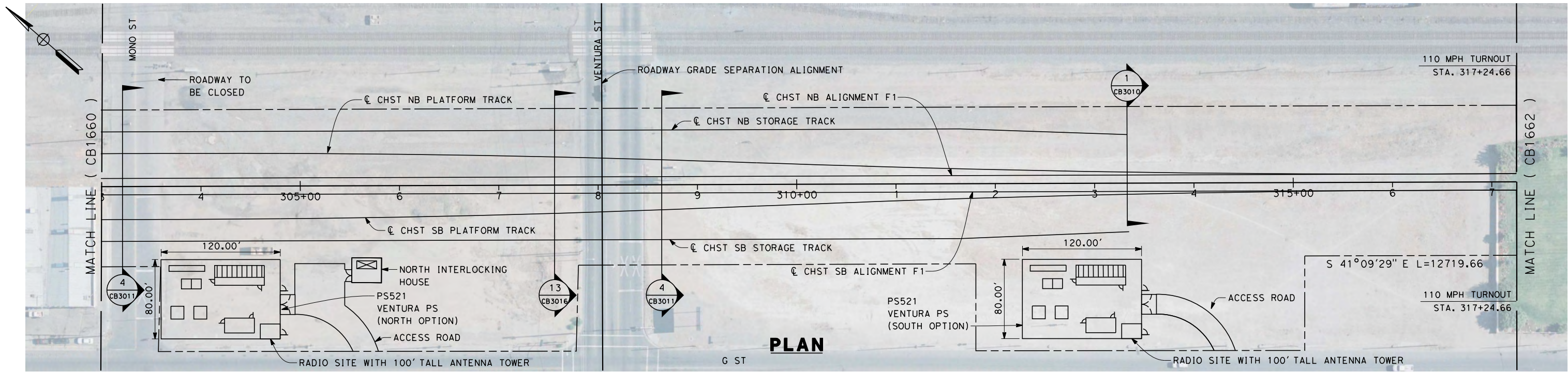
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						DESIGNED BY K. SEYMOUR	RECORD SET 15% DESIGN SUBMISSION -  NOT FOR CONSTRUCTION	 	CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD FRESNO SUBSECTION ALIGNMENT F1 STA. 289+00 TO 303+00 PLAN AND PROFILE		CONTRACT NO. HSR 06-0003
					DRAWN BY P. TONKIN	DRAWING NO. CB1660					
					CHECKED BY D. HUNT	SCALE AS SHOWN					
					IN CHARGE R. COFFIN	SHEET NO. 5 OF 23					
REV	DATE	BY	CHK	APP	DESCRIPTION	DATE 02/15/12					



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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 04/03/12

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



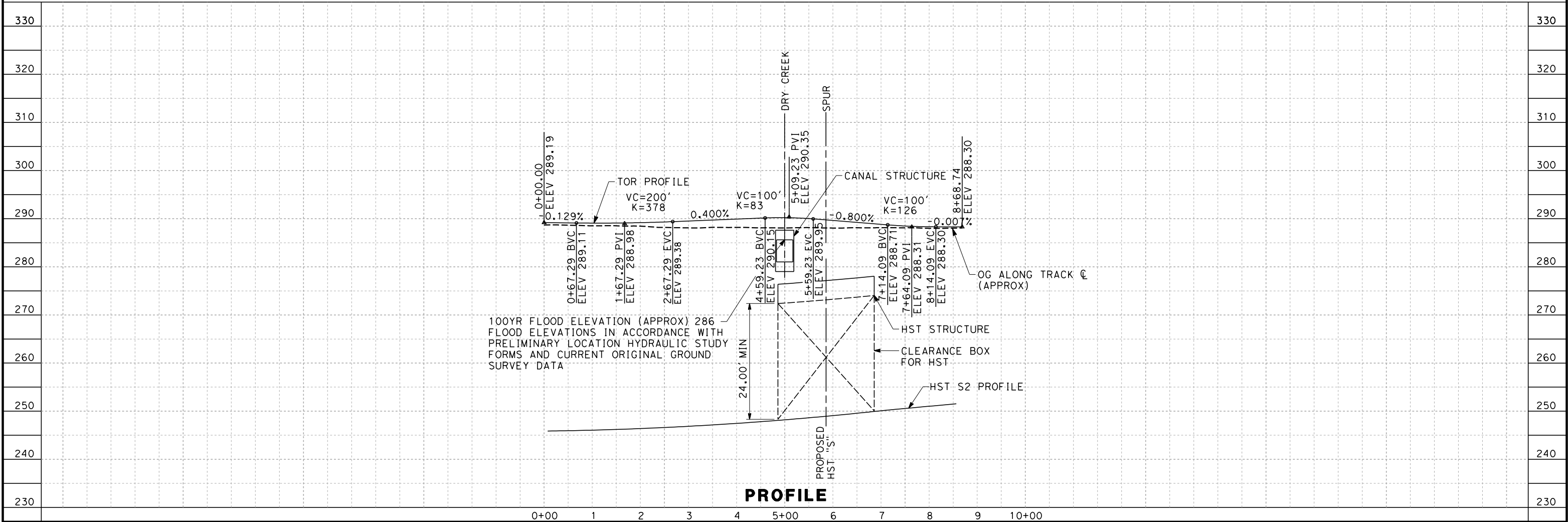
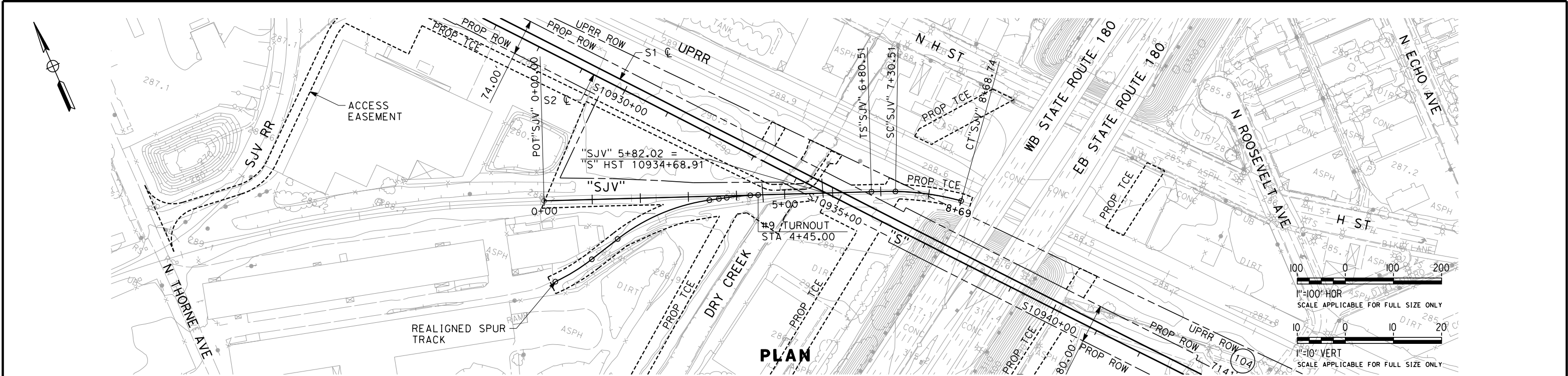
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**

FRESNO SUBSECTION  
ALIGNMENT F1  
STA. 303+00 TO 317+25  
PLAN AND PROFILE

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1661
SCALE AS SHOWN
SHEET NO.



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						DESIGNED BY K. SEYMOUR	<b>PROPOSED PRELIMINARY DESIGN</b>	 CALIFORNIA HIGH-SPEED TRAIN	 <b>CALIFORNIA</b> HIGH-SPEED RAIL AUTHORITY	<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION</b> PACKAGE 1A SJVRR SOUTH SPUR PLAN AND PROFILE STA. 00+00 TO 8+68.74			CONTRACT NO.	
					DRAWN BY P. TONKIN	DRAWING NO. TT-D1030								
					CHECKED BY D. HUNT	SCALE AS SHOWN								
					IN CHARGE R. COFFIN	SHEET NO.								
REV	DATE	BY	CHK	APP	DESCRIPTION	DATE 12/08/11								